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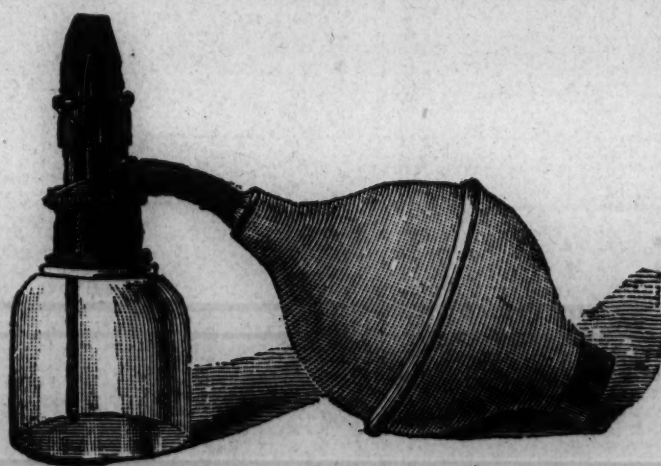


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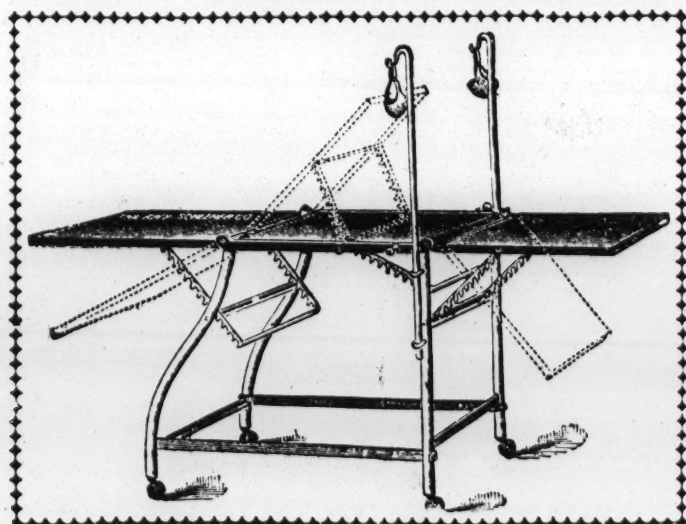
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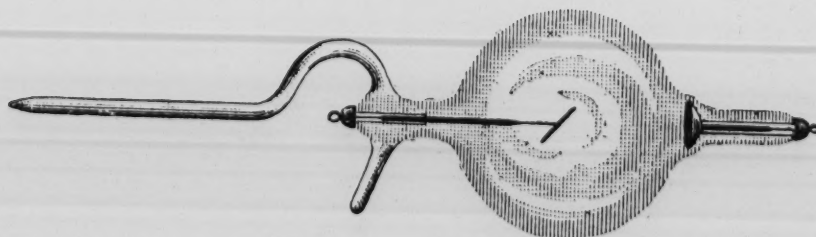
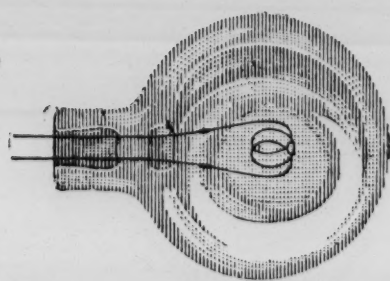


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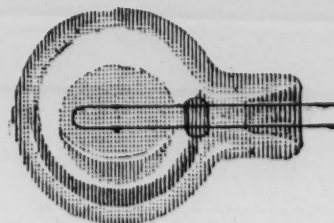


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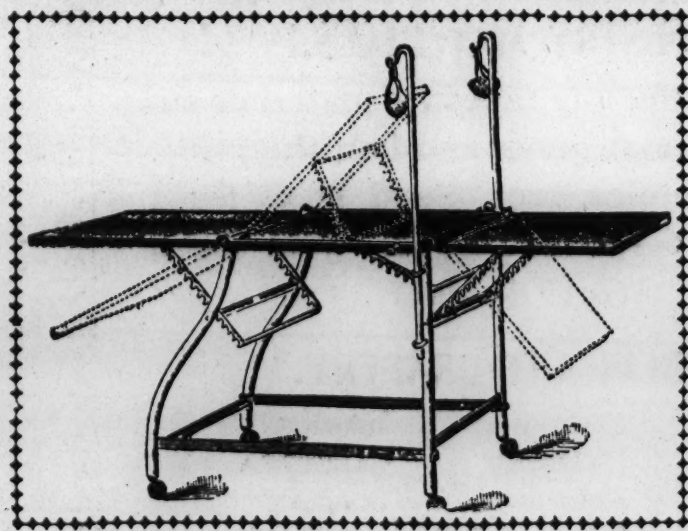
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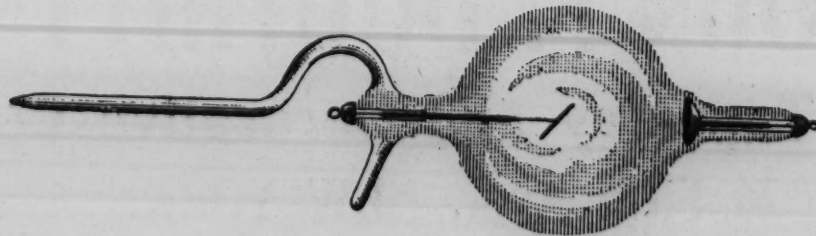
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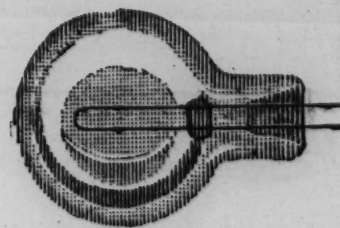
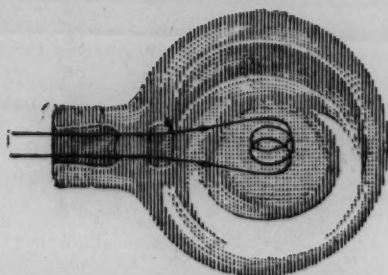
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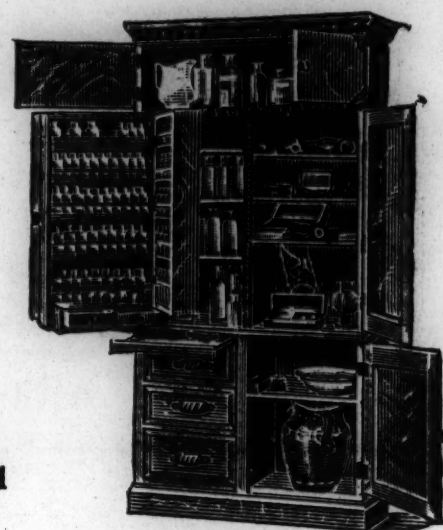
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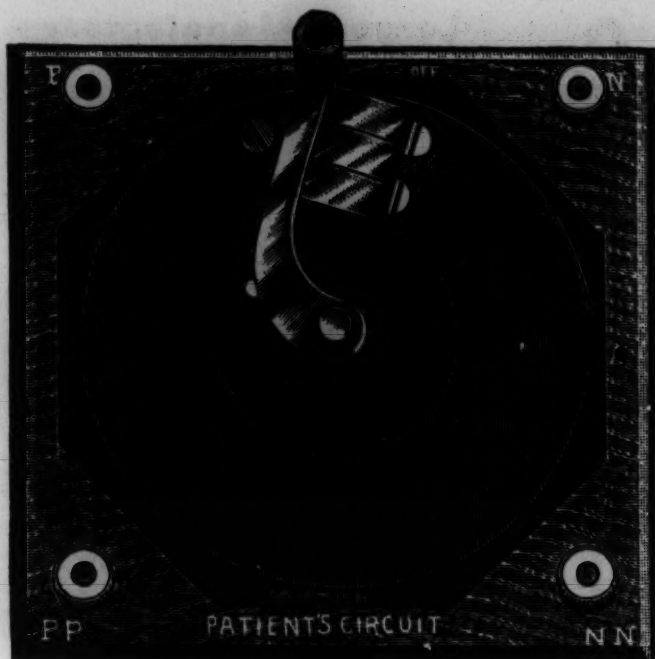
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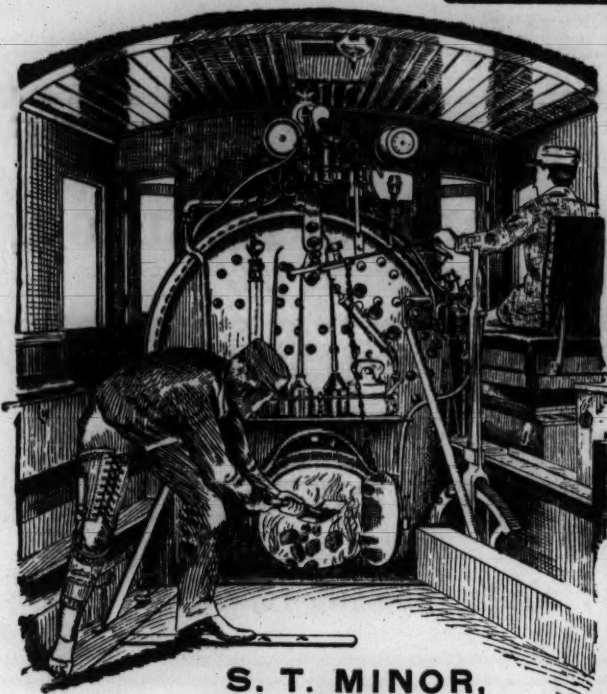
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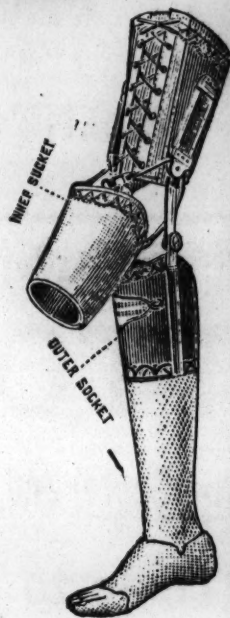
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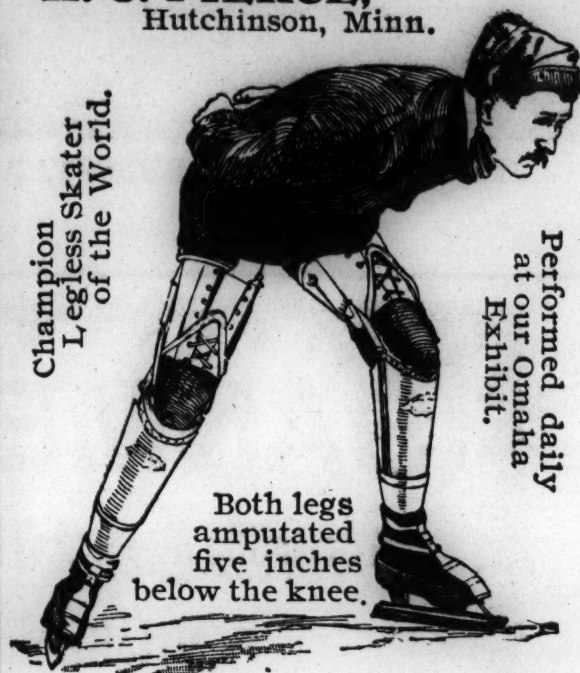
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Occidental Medical Times

VOLUME XIII.

SAN FRANCISCO, JULY 15, 1899.

NUMBER 7.

THE MALARIAL FEVERS OF THE SACRAMENTO AND SAN JOAQUIN VALLEYS.

BY PHILIP KING BROWN, M. D.,
SAN FRANCISCO, CAL.

[Read before the Medical Society of the State of California at Monterey, April, 1899.]

Malarial fevers are certainly more prevalent in the Sacramento and San Joaquin valleys, both in the total number of cases and in relation to the percentage of the population, than they are in any other part of the State. Indeed, there are very few localities in the State outside of these valleys where the fever occurs at all. In San Francisco, at North Beach and the Potrero, about San Francisco Bay, especially along the marsh land on the east and south, along the banks of tide creeks, in Santa Clara and Salinas valleys, and in some of the low lands of San Bernardino County, cases are reported, but it is certain that the vast majority of cases in the State are developed in the great interior valleys, and many of the cases reported elsewhere in the State Board of Health reports are stated explicitly to have originated in these valleys. For example, the records of the City and County Hospital in San Francisco show that nearly every severe case of malaria treated there came from this great interior malarial district, and many of them went to San Francisco for the sole purpose of getting treatment. A considerable number more, having lived in that district for some time free of the disease, have manifested symptoms of it for the first time after coming to the coast or changing their homes to different cli-

mates. This effect from change of climate was markedly illustrated in this State by the development of an enormous number of cases of malaria among the cavalry troops organized in the interior valleys of California during the Civil War and moved from their usual surroundings. It is also frequently observed in patients coming to San Francisco for treatment for other diseases and manifesting malaria for the first time a few days after arrival here. The earliest record of the disease in this State which I have been able to find is the report of General Emory, who came to California with Fremont in 1846, who writes: "The climate is unsurpassed; with the exception of a very few cases of ague and fever of a mild type, sickness is unknown." Malaria seems to have attracted marked attention first in the upper Sacramento Valley, in the region where hydraulic mining was extensively engaged in, and the effects of flooding were felt. It is difficult to ascertain accurately the exact importance of the disease at that time, for typhoid fever and dysentery were extremely common, and the loose usage of the term malaria covered many of these cases, so that no records of conditions at that time are of much value to-day. From testimony which I have gathered from literature and from the earliest settlers in the San Joaquin Valley, where malaria fevers are to-day more prevalent and more severe than in the Sacramento Valley, the disease, although occasionally recognized in early days, is of much later development in its present severe and widespread form. It seems to have spread up the valley as irrigation was intro-

duced, and it is to-day most prevalent in the irrigated districts. That irrigation alone is not responsible for the spread of the disease is indicated by the fact that in many of the districts where citrus fruit is raised and very extensively irrigated, the fever is unknown. The report of the State Board of Health for 1882-83 (p. 51) contains statements from a number of old practitioners in the South, all of whom testify to this fact.

The presence of one of the forms of hematozoa in all true cases of malaria is well known to you, and since the extensive studies of Thayer and Heweston on the malarial fevers of Baltimore, the types of the disease in the United States have been very much better understood. It is a recognized fact that in malaria we have to deal with three distinct but closely related varieties of hematozoa, the organisms of tertian, quartan and estivo-autumnal fevers. Close study of the blood of infected individuals has shown that in the three distinct clinical pictures presented by single infections of each organism, characteristic differences are shown in the organism. So regularly do the clinical pictures and their blood findings go hand in hand that it is impossible in the light of our present knowledge to explain their uniform coincidence except by supposing that we are dealing at least with distinct varieties of an organism. The majority of observers are agreed that each variety exists independently of the others, and one does not pass into another, although two may exist in the same person at the same time. It has been held recently by Koch that this is not so, and that only one variety exists, the different forms in the blood being different kinds of development of that one parasite, and the varying clinical pictures being due to the possible partial immunity of the patient. The whole subject is a difficult one to settle, owing to

our small knowledge of the life of the parasite outside of the human body. The work of Ross and Mauson goes to show that the mosquito is the host of the plasmodium malariae in its life outside of the human body. Experiments to prove this have been recently reported as successful, and some competent critics have accepted the facts as final.

We have an analogous condition in the case of the transference to man of the filaria sanguinis by the mosquito, and of Texas fever from animal to animal by ticks which have fed on infected cattle. Furthermore we have successful experiments in direct inoculations of blood from malarial to non-malarial patients. Knowing, therefore, as we do, the possibilities of direct inoculation, it would seem to me an interesting experiment to see if the blood of a typical quartan fever case clinically would produce any but the same clinical picture when inoculated in a series of individuals of different powers of resistance.

As far as I know no attempt has been made previous to my own to determine from blood examinations the types of malarial fevers in California. In consideration of the importance of understanding the character of the different fevers, and because diagnosis becomes easier when the possibilities are known, it is my plan to show the organisms of the different types, and outline the course of the fevers which they produce. The fact that up to this time we have no definite knowledge of the presence of all the varieties of the parasite in the fevers of California, explains, in part at least, the use of so many ambiguous terms, such as mountain fever, bilious, remittent, typho-malaria, and the like, and the confusion that certainly exists in the differentiation of certain forms of malaria from typhoid. The total number of cases, of which I have good records, is only a few over a

hundred—too small a number from which to draw deductions as to the extent or relative frequency of the different forms of malaria—but enough to illustrate fully the types of the fever found in this State.

The commonest of all the types is the tertian, and among my cases I found it very rarely in single generation in well-marked fevers, most of them being distinctly the double tertian or quotidian intermittent type, one generation of the organisms maturing each twenty-four hours. It is not at all uncommon to get a history of a single infection lasting for some time before the clinical evidences of a double infection are apparent, and in many cases of single infection the disease is so mild that even without treatment there is but one paroxysm, followed by a long period of quiescence. Frequently I have examined the blood of a case on the day after the initial paroxysm, and found remarkably few organisms, much evidence of phagocytosis, small, extra corpuscular forms, and the swollen, irregularly segmenting forms which probably do not mature so as to play any part in a subsequent paroxysm. Indeed, it is my opinion that these irregularly segmenting forms, the extra corpuscular swollen forms which are so common in malarial fevers here in California, are all types of degeneration, and are not capable of continuing the disease. The tertian parasite undergoing regular segmentation, I have never seen in California. It is characteristic of this form that the segmentation goes on in the internal organs except where the infection is very severe, and, therefore, before a paroxysm, and during its early part, it is very difficult to find parasites. I have frequently searched the blood for two hours during this period before finding conclusive evidence that the blood contained parasites.

The parasite enters the red corpuscle

or is destroyed so soon after the paroxysm that it is not possible to find it in the earliest form in the circulating blood. In fresh blood we see it as a small hyaline, quickly moving body, toward the outer part of the red corpuscle, rarely in the center. As it develops it changes its shape materially, and very soon brown and yellowish brown pigment granules appear in its substance. In this condition it is easily recognized in fresh or stained specimens. Its cycle of development is about forty-eight hours, ending with the chill, which occurs at the time of the rupture of the blood cell, and the discharge of the young parasites.

The quartan form of the parasite is not as large as the tertian, contains less pigment, and is slower of development by twenty-four hours, making its cycle seventy-two hours, and at the maturity of the segmentation process there are fewer hyaline forms. Segmentation occurs very generally in the peripheral circulation and is easily followed—a point in the differential diagnosis which is important in dealing with cases of infection with several generations of the same fever, giving as it may quotidian-intermittent fever from double tertian, or triple quartan infections.

Another easy method of diagnosis clinically in multiple infections is the administration of a single large dose of quinin at the time of paroxysm. This results in the destruction of the parasites of one generation, and the type of fever is marked by the interruption of the paroxysms on one of the days.

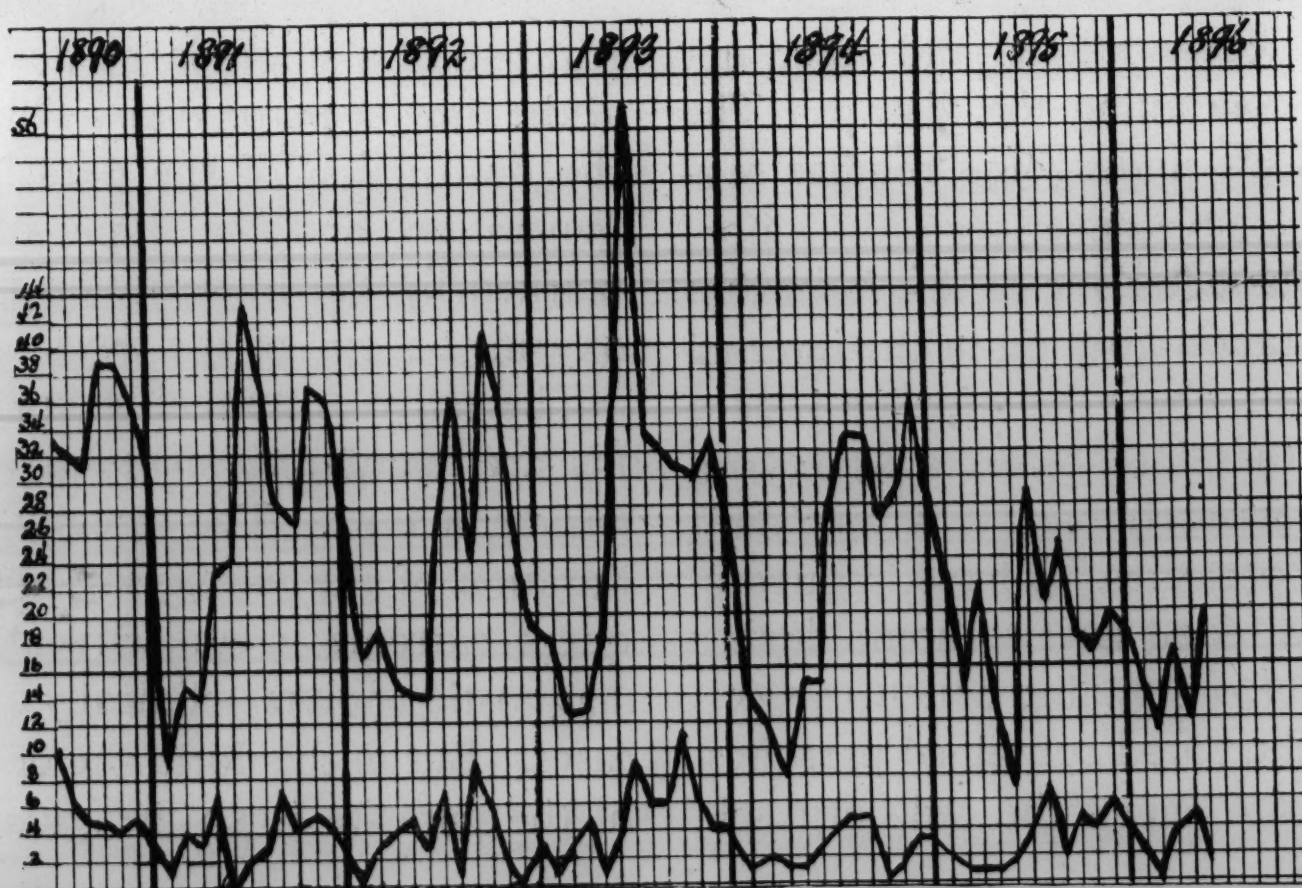
The estivo-autumnal fevers of California are mainly *quotidian-intermittent* and *tertian* in type. The greatly increased duration of the paroxysm and its frequent extreme irregularity are its chief diagnostic points clinically in simple cases. But in this form the development of the parasite is so irregular and so

much more complicated than in tertian or quartan fevers that there is rarely any degree of regularity to the process. I have been unable to find proof in my own examinations that the cycle of development of this form is twenty-four hours, as is stated to be the case by many observers. The cycle seems to me to be at least forty-eight hours long and the organisms show a remarkable tendency not to segment in groups, or, if they do, the groups are too small to cause a paroxysm with the segmentation, or two groups may undergo segmentation within a few hours of each other, so that the character of the paroxysm is entirely obscured. The frequency of double infections with the tertian and estival organisms serves also to mask the clinical picture and the blood examination alone clears the diagnosis.

The mildness of the disease generally in California is indicated by the comparatively small death rate that is reported, even in the parts of the State where the disease is the commonest and severest. Although generally from six to ten times more prevalent than typhoid, the total death rate from the two diseases in districts of California, with an aggregate population of 750,000, shows the following variations: *vide* chart.

It is unfortunate that no State reports have been published since June, 1896, and the reports previous to June, 1890, were either impossible to obtain or they do not contain statistics of comparative value.

This chart is interesting in that it shows the particular year and the time of each year in which typhoid and malaria prevail most severely; also that the death rates in these conditions follow each other in a marked degree, suggesting the possibility that some of the fatal malarias were really typhoids. This is further borne out by the death rates in San Francisco, where, among a population of 330,000, or nearly one-half of the number taken above, the death rate from typhoid averages about *one-quarter* of the total number for the State, while from malaria the death rate is not more than one-fourteenth as great as in the rest of the State. Besides this, during the last ten years, and in spite of increased population, the death rate in San Francisco from typhoid has grown less and less, as it has throughout the State, but the number of deaths from malaria has remained about the same, having decreased more in the years 1880 to 1890 than since, a fact which may be traced to the more accurate methods of diagnosis now in



vogue and a better understanding of the malarial processes.

It may be held that the relatively fewer cases of malaria in San Francisco accounts for the discrepancy, but this, although perhaps true, is counterbalanced by the fact that the County Hospital in San Francisco, and presumably physicians in their private practice, receive annually for treatment a large number of severe cases from the interior. For example, nearly every one of the 126 cases treated in the City and County Hospital in San Francisco last year came to San Francisco with the disease, or within a few weeks previous to the time it developed. Another explanation of the markedly lower death rate from malaria in San Francisco seems to lie in the fact that, as far as I have been able to discover from blood examinations, no case of estivo-autumnal fever that I have seen in San Francisco originated there, and it is the irregular and complicated typhoids, so often fatal, that resemble this form, so that in San Francisco there is less likelihood of diagnosing as malaria the typhoids which resemble the continued fever from extensive infection with the estivo-autumnal parasite.

Mistakes seem also to arise from the very prevalent idea in this State that malaria is a water-born disease, and in as much as this is the etiological factor in typhoid, and the two diseases are prevalent in severest form at the same time of year, the confusion of the two in doubtful cases is increased.

In the literature on malaria by California writers, Remondino, Rowell, Hurley, Powell, Taggart, Flood and others, stress is laid on the water-born cause of malaria. Powell alone is skeptical, but points to the comparative immunity of the Chinese to intestinal troubles, and malaria, which he attributes to their habit of drinking only boiled water in the form of tea.

Taggart also refers to this fact, and to the peculiar type of continued malarial fever at Bakersfield among whites, which he also attributes to drinking-water, but he brings out no clear idea of the connection of the fever with the water. The other writers admit the possibility of other means of infection, but hold more to the gastro-intestinal theory, especially in the low pernicious forms, and they all cite what they hold to be instances to prove this. I will not attempt to review the subject fully, but I wish to call attention to the fact that it is the typhoidal type of malaria that is held most commonly by these writers to be water-born, so that here too a confusion as to the real nature of water-born fevers is possible. Furthermore, against this theory in regard to the source of malarial infection, are the repeated experiments of various European observers, aimed at producing malaria by giving to patients to drink, water from malarial districts, dew from the ground where the fever was known to be severe, and even blood of known malarial cases, and yet these experiments are without a single positive result.

In regard to the comparative immunity of the Chinese, attention has been called repeatedly to the considerable and varying degree of immunity among the dark-skinned races who have for centuries inhabited distinctly malarial countries. Thayer and Heweston in their series of cases in Baltimore refer to the unsusceptibility of the negroes, who, in spite of the filth and unsanitary condition which attend them, are relatively two-thirds less susceptible than whites.

One thing is certain, that even in the distinctly malarial districts of California the proportionally decreasing death rate from malaria as shown by the State Board of Health statistics is due to the greater accuracy in the diagnosis of the malarial cases, and not to any diminution

in frequency or in the severity of the type of infection. The general acceptance of the diagnosis malaria for every headache, malaise, backache, chilly sensation, and fever from forms of auto-intoxication, not alone among the laity, but very generally among physicians, is shown by the readiness of every patient to tell you he has a touch of malaria and by the enormous amount of quinin taken needlessly in almost every good American family. As Laveran himself says, "In a general way it may be said that in malarial districts far too much sulphate of quinin is given to patients who have no need of it, while a sufficient quantity is not given to patients suffering from paludism." Indeed in the two years from April, 1896, to April, 1898, among 263 cases examined by me for physicians and in clinics, with special reference to the presence of malarial organisms, in cases where malaria was a supposed factor, in only ten cases were the organisms found, and in most of these the disease was well marked clinically.

The early reports down to 1894 of the State Board of Health devoted a column in the statistics of diseases to typho-malarial fever, although to the credit of the profession in the State, let me add, that for one and one-half years before the column was stricken out no case of death was attributed to this trouble. It is true that malaria may complicate typhoid, or typhoid may complicate malaria, as Gilman, Thompson, and Osler have shown, but the pathological processes are as wholly distinct as though they existed separately in two individuals.

Osler, in an article on chills in typhoid, describes them as occurring at the onset of the uncomplicated disease, at the onset of a relapse, as result of treatment after the withdrawal of anti-pyretics, after hypodermic injection of sterilized culture of typhoid bacilli, after the application of

guaiacol to the skin, with the onset of complications (pneumonia, pleurisy, otitis, suppuration in mesenteric veins, pyemic abscesses of kidneys, perforation of ileum or appendix, thrombosis of femoral or saphenous veins, and finally the concurrence of typhoid and malaria). Certain it is that there are many chances of error in diagnosis from the results alone of the clinical history.

Another term that has been indiscriminately used by medical men in California is "mountain fever," which is variously held to be malaria by some, and mild typhoid by others. For example, in the excellent article by Dr. G. M. Kober in the State Board of Health Report for 1886, on the prevalent diseases in Surprise and Goose Lake Valleys, the statement is made: "I have diagnosed a number of my fever cases as typho-malarial, and these are the cases commonly spoken of in this section as 'mountain fever.' I confess I hesitate to regard this fever as anything more or less than a manifestation of the typhoid fever poison, but a study of the earlier symptoms especially suggests a malarial element. The disease is rarely ushered in by a chill, more often chilly sensations, repeated two or three days in succession; there is always severe headache, occipital and frontal, and a severe aching in almost every part of the body; insomnia, or disturbed sleep, a peculiar furred tongue, etc. The fever ranges daily between 101° and 104°, and in the first stage of the disease especially shows marked exacerbations and remissions, suggestive of quotidian and remittent fever, and doubtless many of the milder cases are thus reported."

Kober then quotes from Dr. Patterson, evidently his predecessor at the military post from which he writes, who seems to have been in the same country for many

years, and who says: "I regard mountain fever as a modification of typhoid."

In the report of the State Board for 1890-92, page 40, Dr. Schafer says in a note that "at Tehachapi remittent fever is known as 'mountain fever,' and then often confounded with typhoid fever."

Again, in a paper read before the Southern California Medical Association in June, 1895, Hurley, of San Bernardino, speaks of the malignant forms of fever in Kern County, and in almost the next paragraph speaks of mountain fever, which, he goes on to say, "is only one form of remittent fever and amenable to the same treatment."

In the light of our knowledge to-day, and aided by just such careful observations as I have quoted from Kober's report, we know that his mountain fevers are nothing more or less than typhoid. Whereas it is reasonable to suppose that Schafer has used the word in connection with cases that may be pure forms of common malaria. In general, the terms seems to have been used for the atypical typhoids of some mountainous regions.

The term is certainly an unfortunate one, and should be dropped entirely, along with the equally misleading term typho-malaria, since its symptom complex does not seem to give it an identity as a separate pathological condition.

There is certainly a striking resemblance clinically between typhoid and the continued and irregular malarial fevers due to infection with multiple groups of organisms, or lack of arrangement of parasites in well-marked large groups. Such fevers may range for days with a temperature varying from 101° to 105° without any chill, and only by therapeutic measures (quinin) and the blood examination can the correct diagnosis be made. The onset of estivo-autumnal fever may be very gradual and without a chill, or even chilly sensation, the spleen is large

and tender, nose-bleed is observed occasionally, there is dullness, malaise, flushed face, injected conjunctiva, dry, furred tongue, sallow skin, possible jaundice, and herpes of the hips is especially common. The course of the fever may resemble that of typhoid for weeks, and that, too, in spite of considerable doses of quinin.

I have been unfortunate enough to observe at length one case only of estivo-autumnal fever, and that a mild one in a patient who had come from Fresno six weeks before, and who had been ill three weeks when I saw him. He had had irregular chills and fever four months before. The onset of the attack in which I saw the patient was a malaise and general depression, with chilly sensations, lasting for a few days. For more than two weeks, however, he had had a more or less severe chill every afternoon. The temperature record and treatment are indicated on the chart. (This chart is not published—Pub. Com.) Once the diagnosis is made, beyond a doubt, the treatment is simple, and if the cases of true typhoid could be cut out, the malarial fevers that originate in California would play a much less important role in the death rate.

SINUS-THROMBOSIS.

Cure Without Opening the Sinus.*

BY ROBERT LEVY, M. D., DENVER, COLO.

Professor of Physiology and Laryngology in Gross Medical College; Laryngologist to Arapahoe County, St. Anthony's and St. Luke's Hospitals, etc.

Case. J. B. female child, aet. 6 years, was first seen by me through the courtesy of, and in consultation with Dr. G. B. Crews, Nov. 17, 1898. The child's father had died of tuberculosis, with the exception of which there was nothing important in the family history. About

*Presented to the Western Section of the Amer. L. R. and O. Society at San Francisco, March 28, 1899.

two years ago, after exposure to cold there occurred severe earache in the left ear, but unattended with any discharge and continuing several days. The child gives evidence of enlarged tonsils and the presence of adenoids, which in a subsequent examination was confirmed. During the past year the child has been showing signs of slight deafness. On Nov. 11, 1898, without apparent cause the child was again suddenly taken with severe pain in the left ear, which continued uninterruptedly with great severity until the evening of November 12th when a sudden profuse purulent discharge from the external canal occurred. The pain in the ear, although considerably diminished, did not cease. The child seemed nervous, restless, and apparently very ill. On the evening of November 14th without any warning a sudden severe chill occurred, followed by great fever but no sweating. The following morning another severe chill caused the mother much anxiety on account of the great depression, pinched appearance and general distress which followed.

At the time of my examination I found the child very irritable, presenting a general appearance of depressed vitality, rapid pulse but no rise of temperature. Upon examination of the ear a very moderate amount of discharge of a purulent character, without odor was seen. After cleansing, a small perforation was detected in the posterior inferior quadrant. There was no displacement of the auricle, no swelling over the mastoid, but decided tenderness over the tip which extended down the neck. Upon close investigation, this tenderness was also marked over the region of the lateral sinus. There was frontal headache, coated tongue, loss of appetite, vomiting and vertigo upon moving.

A general expectant plan of treatment

was instituted and the case carefully watched until November 23d when all constitutional symptoms had become gradually worse. Up to this time there had been seventeen distinct and severe chills. The pulse continued high, never less than 120, while the temperature was exceedingly irregular, reaching 105 F. in the axilla and at times being as low as 96 F. The anorexia, vomiting and vertigo did not abate. The child continued very restless and sleepless, was emaciated and weak. The local symptoms did not vary much, the discharge continuing more or less, at times being quite scanty, at others rather free. The pain remained localized to the tip of the mastoid and to the region of the sinus. No swelling or redness could be detected. It was evident that the condition was one of great gravity, pointing to purulent deep-seated mastoiditis with thrombosis of the lateral sinus.

Operation was urged, and, after much discussion, consented to by the mother. Removal to a hospital was, however, absolutely refused, which formed a serious handicap to opening the lateral sinus. At 7 p. m. November 23d with the assistance of Drs. Crews, Joseph and Pershing, the latter having been called in consultation to confirm the diagnosis of thrombosis, the operation was performed. The general condition of the patient was so poor that she almost succumbed during the administration of chloroform and before the operation was begun. The mastoid was rapidly exposed and a normal cortex discovered. Upon entering the antrum, however, a small quantity of pus escaped and soft bone and granulations presented. With the curette this was thoroughly cleaned away, the mastoid cells exposed and all necrosis removed. At this stage of the procedure the advisability of entering the sinus was conscientiously discussed.

Owing to the very precarious condition of the patient and the unsatisfactory surroundings, it was deemed best to avoid further operative interference, with the expectation of opening the sinus later should the urgent symptoms not abate.

The child rallied well from the shock of the operation and by the fourth day presented a normal temperature, which continued all day, and a pulse which did not rise above 90. Her general condition was much improved, the restlessness and irritability having passed. Satisfactory progress continued until the ninth day, when the temperature suddenly rose to 103 F. Upon the tenth day, after decided chilliness the temperature rose to 105 F., dropping within three hours to 98 F. The chilliness followed by high temperature continued almost daily until the thirty-fourth day, becoming, however, gradually less and followed by a temperature of less height, and continuing but a few hours. The depression in temperature during the entire course was very marked, being as low as 95 F. upon several occasions. Vomiting continued more or less as did also the pain behind the ear. On the nineteenth day severe pain in the right ankle occurred, to which was added, on the following day, pain in the right knee, which continued for some days and finally disappeared. Upon the return of the chills, high temperature and other alarming symptoms, operation upon the sinus was again urged, especially in view of the fact that the child had made some favorable progress in point of strength. It was pointed out that the condition was one, which would doubtless end fatally without operation, but the mother firmly and absolutely denied her consent. A very unfavorable prognosis was therefore insisted upon and the case placed under the care of Dr. Crews with the suggestion that supporting measures be all that could be done.

At the end of the thirty-fourth day, the temperature was practically normal, the pulse but slightly accelerated and the general condition greatly improved. This improvement continued with occasional fluctuations until at the end of two months when the child was completely recovered.

With such a history one is placed in the awkward position of determining the correctness of a diagnosis of sinus-thrombosis. Had the case terminated fatally no such question would be raised. In view, however, of a favorable termination, and noting that it is extremely rare for these cases to recover without operation, as also with operation, one must have considerable conceit in his diagnostic skill to insist upon the diagnosis of sinus-thrombosis. Without having seen the thrombosed vein, it is only by a correct interpretation of symptoms, the preponderance of which points to sinus-thrombosis, that one may conclude that the diagnosis as above stated is correct. Nevertheless, it doubtless remains an open question as to whether the constitutional symptoms were not the result of septic infection from a purulent mastoiditis without involvement of the sinus. Had the case progressed favorably and improvement continued uneventful after the operation, which was thoroughly performed, complete communication between the antrum and the tympanum having been established, I should have dismissed it with the confidence that the original diagnosis had been incorrect. Owing, however, to the recurrence of all symptoms indicative of sinus-thrombosis ten days after the mastoid operation, I am forced to the conclusion that no error was committed. Bacon agrees that "When a patient suffering from purulent otitis media, and especially if there be symptoms of mastoid disease, has a sudden chill, followed by a rise in tempera-

ture, the indications point to the formation of a thrombus, provided a careful examination of the patient's general condition has been made and other diseases can be excluded." In this case most thorough and careful investigation failed to reveal any other cause for the above-mentioned symptoms.

The complex of symptoms as outlined by the history of this case can be explained upon no other ground, and as Whiting states "if the course pursued by the affection is at all typical, there musters in imposing array a sequence of symptoms, which are quite irreconcilable, when associated with a suppurative inflammation of the ear, with any ailment other than infective involvement of the sinus." Accepting the correctness of the diagnosis in this instance, one is forced to the conclusion that the thrombosis did not undergo disintegration, that it proceeded no further than the early part of the second stage, as outlined by Fred Whiting, and that a cure by organization of the clot had taken place.

CEREBRO - SPINAL MENINGITIS, THREE CASES—DEATH— AUTOPSY.

BY S. J. HUNKIN, M. D. ASSISTANT ORTHOPEDIC CLINIC CHILDREN'S HOSPITAL,
SAN FRANCISCO.

[Read before the San Francisco County Medical Society
June, 1899.]

Baby R., aet. 20 months, first child, healthy, was a patient of Dr. Petrie and was taken sick on the 7th of April with an attack of vomiting after being well all day. The vomiting was followed with high temperature and symptoms of gastritis and enteritis. Bowels were moved with difficulty, but the temperature kept high. The child was unconscious and the case looked like typhoid. I first saw the child with Dr. Petrie on the 11th of April, and found it stupid,

deaf, pupils dilated, but uneven, with very slight reaction, "*tache cerebrale*" was present, patches of herpes on face, neck, right side of front of chest, and in the palms of both hands, neck was stiff and thrown backwards and pressure over posterior surface, or attempts to flex were evidently painful. Temperature, 102.5°, rectal, and pulse 160. We also found that the child for the last few weeks had been playing in the sand within a few feet to leeward of Camp Merritt. We agreed at this time that the child had cerebro-spinal meningitis, possibly the epidemic form. I saw the child several times during the next week and the picture gradually became less defined. The child regained consciousness, the pupils reacted and the child could certainly hear. There was steady improvement then for several weeks. The child could sit up, talk even better than before its sickness, had a fair appetite and was considered practically out of danger by the family, but Dr. Petrie noted continual constipation, steady emaciation and a slight, uneven range of temperature. About the middle of May the child lost rapidly, became deaf, blind and unconscious. I saw it again with Dr. Petrie on the 24th of May. It was then semicomatose, but could be roused to take food, pupils were dilated, uneven and slight external strabismus, and in a position of opisthotonos. Lumbar puncture was advised and made on the next day (the 25th), and about 50 cc. of a pale straw-colored fluid, containing some small thread flocculi. This was examined by Dr. P. K. Brown, who makes the following report: "The fluid sent me for examination had a pale yellow color and was quite clear. It contained a few flocculi of white fibrinous appearance. Coverslips from centrifugalized specimens showed few leucocytes and a considerable number of large and small

mononuclear cells. Certain of the leucocytes contained diplococci often three or four pair in one cell. This organism corresponds to the diplococcus intracellularis meningitidis of Weichselbaum."

Death occurred on the 26th. Autopsy made on the 27th. Dr. Smith of the Children's Hospital kindly assisted at the autopsy and the following report is from her notes: "May 26, 1899. Baby R., age 22 months; autopsy 28 hours after death. On removal of scalp, skull appeared very much darker than normal, and dull and dry. When skull-cap was loosened, a considerable quantity (estimated 30 cc.) of light straw-colored fluid sprang out with force. Dura mater was adherent to the brain at the vertex, tearing off with some difficulty. Convolutions of the brain were flattened and sulci nearly obliterated. The vessels were injected, and some blood was poured out on the surface of the brain, particularly so along the longitudinal sinus. A whitish lymph covered the brain surface, while along the Sylvian fissures the exudate had a creamy yellowish appearance, particularly so on the left side. The ventricles were dilated and contained $\frac{75}{100}$ cc. of light straw colored fluid. The ependyma were softened and covered with whitish flocculent lymph."

No further autopsy was made as I had great difficulty in getting permission to have any examination.

In this connection I would like to report the two following cases: Baby C., bottle baby, age 6 months, seen evening of June 27th, twin, other child alive and well, was well up to five weeks ago; was taken with an attack of vomiting; supposed to be due to indigestion, and has laid semi-stupid ever since; was severely constipated for first few weeks, but lately only slight tendency to constipation; has emaciated, but takes food eagerly with a

tendency to vomit. He has had no herpes, child is in position of marked opisthotonos and has been during its sickness. Both right and left shoulder joints are filled with fluid, the left more than the right, the right knee joint is inflamed and enlarged, flexed about 45 degrees, very little if any fluid. Both hips and knees are spasmodically flexed and slight convulsions occur from time to time, eyes are wide open and pupils dilated and do not react to light, the child apparently blind. The child came from Antioch, and parents refused treatment after learning diagnosis and prognosis, and returned home the following morning.

Baby M., girl, nursling, 8 months old, seen by me on the evening of 28th June. Perfectly healthy baby until 5 weeks ago, taken with vomiting spell, next morning was apparently better, but on returning from a ride in the buggy mother found it dazed and stupid and cross-eyed. This condition has persisted, the child nurses well, but if it gets too much at a time it vomits, it is persistently constipated, has steadily emaciated, and lately has had a slight cough. At present child is emaciated, head retracted and spine in position of extreme opisthotonos, fontanelle is bulging, there is internal strabismus of both eyes, pupils are moderately dilated and do not react, hips and knees are flexed, no herpes, no joint involvement. Lately almost complete suppression of urine, passed urine only once in last 36 hours and then very scanty. Lumbar puncture was made the next morning, 29th June, and about 25 cc. of a whitish, nearly transparent fluid secured. There was a pressure within the canal, equal to a column of 45 cm. The fluid was slightly viscid and ran very slowly. Dr. Brown reports that he was unable to find the diplococcus intracellularis meningitidis in this, but what appeared to be a single pneumococcus.

It will be interesting to watch this last case, in view of the doubt of its being the epidemic form of cerebro-spinal meningitis of the other cases there can be no doubt, hence we must consider that the epidemic bacteria is with us, and not alone in the city, but also in the country.

1614 California St.

ABSTRACTS.

AN IMPROVED CULTURE MEDIUM FOR TUBERCLE BACILLI.

In the culture of pathogenic germs the medium resembling the closest the living organism should offer the greatest advantages. Besançon and Griffon, following this principle, have proposed the non-modified blood of laboratory animals as a medium for the culture of tubercle bacilli. The medium is prepared as follows: The arterial blood is collected aseptically in tubes containing glycerin-agar dissolved in a certain quantity of bouillon. The mixture is kept liquid in the "bain-marié," care being taken not to shake the tubes. In cooling (in slants), the agar retains the normal blood, making an excellent solid culture medium upon which abundant and early cultures may be obtained, either from tuberculous lesions or from other cultures. (*Presse Méd.*, February 8, 1899.)

D. T

INSUFFICIENCY OF STETHOSCOPIC SIGNS IN THE DIAGNOSIS OF PULMONARY LESIONS.

Insufficiency of diagnosis and want of proper localization of pulmonary lesions, rather than imperfect technique, explain the frequency of failures in surgery of the lung. In order to treat satisfactorily a

pulmonary lesion, two factors are indispensable: 1st, the knowledge of its seat and extent; 2d, whether it is single or not. In 17 pneumotomies performed by Tuffier, a mistake was made 7 times, and generally a mistake in pulmonary surgery means the patient's death. Many lesions are not revealed by auscultation, particularly bronchial and pulmonary neoplasms. Hepatic abscess and interlobar pleurisy are the cause of frequent errors, and, even if the pulmonary lesion be recognized, it is exceedingly difficult to determine its extent in height and depth with sufficient accuracy to allow of radical intervention. Pulmonary cavities baffle all known methods of measurement; a small cavity may resemble clinically an enormous one, especially in cases of bronchiectasis, where a series of small cavities produce a train of symptoms similar to those noted in the case of a single cavity. Exploratory puncture is as unreliable as auscultation (50 per cent of failures). Very little knowledge can be derived from the character of the expectoration; in children bronchorrhea often simulates the evacuation of a single cavity. By far the greatest difficulty is experienced in determining the number of pulmonary lesions, especially in the lower lobe. The majority of mistakes occur in this region, the apical lesions giving rise to much less doubt. Notwithstanding the great frequency of error in the diagnosis of pulmonary lesions, Tuffier emphasizes the fact that a number of cases have been reported in which an exact diagnosis led to rational intervention. Errors of diagnosis will very probably occur less frequently when auscultation and surgical exploration are seconded by radioscopy, radiography and stereo-radiography. According to Béclère, interlobar pleurisy is much more common than generally believed. Since he had made it a rule to examine all chest cases by means of the X rays, he had found 10 cases of interlobar pleurisy, which, by the ordinary methods of diagnosis, would have been taken for circumscribed tuberculosis or gangrene. (*Presse Méd.*, January 28, 1899.)

D. T.

Occidental Medical Times

Communications are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author. Published monthly.

OFFICE OF PUBLICATION, : : : 1121 SUTTER STREET, SAN FRANCISCO.

SAN FRANCISCO, JULY 15, 1899.

A CONSOLIDATION—THE RECORD AND TIMES.

With this issue THE MEDICAL TIMES makes its appearance in a new form and with a new office of publication, but with the familiar names that have been identified with it for many years. In March, 1887, the SACRAMENTO MEDICAL TIMES made its first appearance in a very modest form. It was well received, indeed welcomed, and it grew apace. In the following year, the new journal was substantially enlarged; and the local designation in its title was changed to OCCIDENTAL, in deference to the views of many of its friends. During succeeding years, in consequence of the demands upon its space, THE TIMES was frequently enlarged until, judged by the standard of a local medical journal, it had far exceeded the most sanguine hopes of its promoters.

With this material prosperity came an enormous increase in the expenditure of time and energy demanded by the journal. To conduct the editorial supervision and business management of THE MEDICAL TIMES, and, at the same time, to engage in active medical practice, was a task far too exacting for one man to successfully accomplish. As year by year the demands upon time and energy increased, it became no longer possible to continue the task, unaided. For many years its friends have urged that THE MEDICAL TIMES should remove to San Francisco, it being felt that the metropolis offered a wider field and, from a

business standpoint, advantages that its birthplace did not afford. The opportunity has now been presented to accomplish this object and, at the same time, to divide the labor and the responsibility. Under arrangements that are mutually satisfactory, THE PACIFIC RECORD OF MEDICINE AND SURGERY will be combined with THE MEDICAL TIMES, under the title of the latter. DR. LOUIS A. KENGLA, the Editor of THE RECORD, will be associated in the management of the new journal and will share its cares and responsibilities. THE MEDICAL TIMES will hereafter be published in San Francisco. There is every reason to anticipate that this arrangement will provide a better journal for the profession, and no effort will be spared in that direction.

The change in publication necessarily means the severing of relations with our old-time printers, MESSRS. D. JOHNSTON & Co., of Sacramento. THE MEDICAL TIMES has always been noted for its typographical appearance and for the accuracy of its text—in fact, in these particulars, it was on a par with any of its contemporaries. These results were due to the character of the office and the pride that was always taken in this publication. But, more than this, must be gratefully acknowledged, the many courtesies and kindnesses received from MR. A. J. JOHNSTON, the head of the firm. These are too numerous to particularize, but they are of a kind and degree that cannot be estimated on a commercial basis.

In conclusion, there must be a word in acknowledgment to one who watched over the journal from its earliest years—faithfully, constantly and most conscientiously. MR. W. J. HASSETT, as foreman of the office, was responsible for the mechanical part of the work, and his taste and judgment were everywhere reflected in the journal. To him the writer gratefully acknowledges all that he knows about the “art preservative.” Looking back, for the past twelve years, it is easy to see the great patience and long suffering demanded in such a position. That MR. HASSETT was never found wanting, in any respect, will be recognized, by those familiar with such work, as the highest testimony that can be offered to the character and disposition of a man.

JAMES H. PARKINSON.

In addition to the above, little need be said in behalf of a change that must add greatly to the advance of medical journalism on the Coast.

With the amalgamation of THE PACIFIC RECORD OF MEDICINE AND SURGERY and THE OCCIDENTAL MEDICAL TIMES there will be no lessening of effort to furnish the profession with a magazine worthy of an acceptance that has been freely and generously given.

The consolidated journal, bearing the ever respected name of THE TIMES, will follow out a policy loyal to the profession, impartial and upholding ever and always the honored name of Medicine.

The management of a journal of this character necessarily imposes many obligations, that make their recognition at the time a delicate matter, and an opportune moment has now arrived when our sincere gratitude can be extended to our collaborators, the profession and advertisers, through whose aid and influence alone we have been able to attain what-

ever of success has attended our efforts.

During the last two years many changes in the make-up of the book have been contemplated, which now can be assured our readers. One of the utmost importance, neglected for want of space, is the work of our collaborators, which has only appeared fragmentarily. With an early issue, under the head “Departments,” these will appear regularly. Increased space, long promised, will be gained by a change in the setting of the type and by the addition of new pages.

Every effort will be put forth in presenting the profession with a book pleasing to the eye, and containing the best material produced on the Western slope. For this purpose we must appeal to the profession for greater care and thought in the preparation of their work, and urge them to a stronger sense of pride and loyalty to home journalism. With the June issue, therefore, came the close of the thirteenth volume of THE RECORD, an ending which is merely the beginning of a new, brighter and more serviceable existence.

L. A. KENGLA.

MEETING OF AMERICAN MEDICAL ASSOCIATION.

The last annual meeting of the American Medical Association, held in Columbus, Ohio, June 6th, 7th, 8th and 9th, was a most unusual one in a number of ways. Though the place of meeting was perhaps, somewhat unfortunate, there can be no doubt that the meeting itself was a most decided success. The attendance was much larger than usual and while there was much overcrowding, still a feeling of good nature seemed to pervade the throng of delegates and members. The amount of “soda water” and “lemonade” consumed was large, out of all proportion to the size of the

gathering, and the quantity of alcoholic heart stimulants imbibed was most remarkably small. The "all-night sessions" were apparently quite overlooked in making up the programme of impromptu entertainments. The "American Medical Editors" went from their dinner to their temporary homes—sober!

The general sessions—the business meetings—of the Association were notable for the large attendance and the unbroken harmony which prevailed. The wrangling and squabbling, so unpleasantly noticeable in previous years, was quite absent. Some "heaven-sent spirit of harmony" seemed to prevail; such resolutions as were passed and such changes as were made were almost without exception endorsed by a unanimous vote. Personalities were not indulged in, senseless and wearying discussions did not occur, and petty spite and malice found no vent.

It was a singular but obvious fact that the conditions most prominent at the Columbus Meeting of the National Association were the conditions most prominent at the recent meeting of the California State Society—harmony and scientific work of a high grade. Peanut politics and flagrant personal advertising schemes, in both cases, yielded to a scientific spirit that was good to see.

The section work of the Association was particularly good, and, though the number of papers was too great, the wheat was thoroughly thrashed out. The recommendation of the executive committee, that the number of papers be limited and that authors' abstracts be sent to chairmen of sections in ample time for publication in the official programme, was a most excellent move and was heartily endorsed by the Association. Many of the papers presented showed clearly the evidence of original research

and careful work; all were good. The discussions were strictly limited in time, as were the papers, and were in general valuable. The attendance at the section meetings was large and the evident interest marked.

The position of the "young man" in medicine was strikingly illustrated. Pretty much all the papers introduced, in which any advance was noted, any research recorded or any new thing of value brought forward, were from authors with less than two score years of life to their credit.

But with the praise for the high grade of scientific work must go a word of criticism, of deprecation, for the cold-blooded disregard for good English pronunciation and grammatical construction. Too many men rose from their seats and soberly announced that they had "operated a case." Or that they "saw a case!" Did ever mortal man "operate a case" or "see a case?" And the bastard Germanism of construction in "operated a case," or "operated this patient," is most distressing to any lover of good strong English. It would almost seem that in the hurry and rush of producing and reading books on medical subjects, the dictionary and the grammar had become works of but traditional fame. And the fault is not alone with the professionally young; indeed they are furnished with illustrious examples in goodly number. When one high in office in the Association, a leader in one of the largest medical schools of the East, presents a paper for the consideration of the Association, in which is recounted a most brilliant operation resulting in perfect restoration of the parts involved, and throughout the course of his paper persistently pronounces "trachea" as though the word were accented on the penultimate, what is to be expected of the younger men who look up to

him, not alone for his professional ability or his surgical skill? What can be expected when the "great ones" display such an illuminated ignorance or such a criminal carelessness of the English tongue? After the reading of the paper in question,—which is not cited as a solitary example but simply because the author is a man of great prominence in the profession,—a dictionary demonstration was required to convince several listeners that the author and reader could possibly be wrong. Good, careful, scientific work is not incompatible with a respect for and a use of good English; rather the contrary, in fact, for the man who is careful in his choice of words and in the pronunciation of them, shows a conscientious, thorough, considerate mind, a capacity for clear thinking and a respect for facts that certainly ought to lend weight to any and all of his utterances.

The much discussed question of the secretaryship came up again, but in contradistinction to the scene upon its appearance in many previous sessions, it was settled satisfactorily and unanimously. The editor of the Journal of the Association was made the secretary of the Association, by unanimous vote and upon the recommendation of the Executive Committee and the Board of Trustees. Dr. Atkinson, for several years secretary, was retired and appointed, "until further action by the Association," to take charge of the registration at the annual meetings. And so ended the perennial squabble over the secretaryship.

The position of the Association in the questions of vaccination, tuberculosis and syphilis was defined in no uncertain words. The resolutions passed on these subjects, and the work to be done before Congress on these questions and in the

matter of vivisection, will be found in the Association Journal.

So far as the social entertainment of the visitors was concerned, perhaps the less said on the subject the better. Columbus seems to be an overgrown village in the interior of Ohio, just at present suffering from an over-distended head. The contrast between the entertainment of the visitors by the San Francisco men in 1894, and the entertainment at Columbus, was painfully striking. It is quite astonishing, when one comes to think the matter over, that the fatalities were not more numerous!

There are, however, some misplaced men of genius in Columbus. The commercial instinct displayed by the hotel proprietors and managers is worthy of a more extended sphere.

A COURSE OF POST GRADUATE INSTRUCTION.

A course of Post Graduate instruction will be given at the San Francisco Polyclinic, 410 Ellis Street, beginning Monday, August 1, 1899, and continue for four weeks. The course will embrace all branches in medicine and surgery. They will be practical only and the vast material of the Polyclinic will be at the disposal of the student. The services of the members of the staff at the City and County Hospital and other Hospitals, with which the members of the staff are connected, will also be available for instruction. The fee will be \$30.00 for the entire course, embracing all the branches; only graduates of schools of regular medicine will be admitted. Special effort will be used to make the course practical and instructive. For further particulars, address the Secretary of the S. F. Polyclinic, Dr. Leo Newmark, No. 705 Sutter Street.

LANE MEDICAL LECTURES.

The Lane Medical Lectures for the year 1899 were delivered by Dr. Nicholas Senn of Chicago. In many respects this series was quite satisfactory. The subject-matter showed much care in preparation, was complete and brought out ideas possibly a little in advance of full acceptance by the surgical world, which his very great experience and recent service in the Spanish-American war should give valuable reasons for supporting. Especially is this true of his treatment of gunshot wounds. The subject of asepsis was thoroughly gone over and his earnest plea for simplicity in technic and the surroundings of the operating room were timely. His tribute to the trained nurse was pleasing. The attendance was representative and satisfactory. The next course will be delivered by the eminent physiologist, Michael Foster, of London.

NEW MEDICAL LAW FOR NEVADA.

On March 15, 1899, an Act was approved "for the creation of a State Board of Medical Examiners, and to regulate the practice of medicine and surgery in the State of Nevada" consisting of three from the "regular," one from "Homœopathic" and one from the "Eclectic" school of medicine. The requirements of this law should only be satisfactory for the present. It should form the ground work of a law demanding that for the future only graduates should practice and should make an examination obligatory upon all desiring to locate in the State whether American or foreign graduates. Meetings of the board are to be held semi-annually.

The first meeting, in accordance with this law, was held in Carson City on May 1, 1899, and the following physicians

constituting the Board organized as follows:

P. T. Philips, M. D. (regular), Reno, President.

S. L. Lee, M. D. (eclectic), Carson City, Secretary.

Jas. Guinan, M. D. (regular), Carson City.

George Fee, M. D. (regular), Reno.

P. Wagner, M. D. (homœopath) Carson City.

DENTAL DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA.

As there has been some misunderstanding regarding the date of the beginning of the next session of the Dental Department of the University of California, we are authorized to announce that the session will begin September 4, 1899, and close May 31, 1900. The Entrance Examinations will be held September 1st and 2d. The Examinations for Conditions will be held September 6th, 7th and 8th.

THE PLAGUE FIASCO.

Recently the community was thrown into an extreme state of excitement by the daily press announcing that one of the Trans-Pacific liners had returned with passengers infected with the bubonic plague.

It seems that the federal quarantine officers denied the report, and the local health officials protested vigorously that the plague existed and demanded that the vessel should be quarantined. Events have proven that the disease did not exist. The uproar occasioned was certainly not dignified and is much to be lamented, since it leaves ample room for criticism by the ever ready and inconsiderate laity. The unsettled condition of local quarantine affairs is very bad; under existing conditions the Board of

Health is not in a position to cope with such dread diseases as may be imported, either by proper disinfection or quarantine. We believe that the federal government should take up the matter vigorously and not only protect the citizens of our city, but the whole country, from the danger of infection. It is a matter of supreme importance, and the national government alone can meet the difficulty.

COMMENCEMENT EXERCISES OF THE COLLEGE OF THE PHYSICIANS AND SURGEONS.

The commencement exercises of the College of Physicians and Surgeons were held in the California Theater on Wednesday, July 12, 1899.

The degree of Doctor of Medicine was conferred on 19 candidates and that of Dental Surgeon on 82. Dr. J. R. Laine presided. Rev. J. A. B. Wilson gave a preliminary address on "The Mercies of Medicine," and Hon. John P. Irish addressed the graduating class. The exercises were freely interspersed with music.

SOCIETY PROCEEDINGS.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Meeting June 13, 1899.

The President, Dr. George W. Davis, presided.

Dr. Krotoszyner read a paper entitled, "NOTES AND OBSERVATIONS ON SYPHILIS AND GONORRHOEA IN RELATION TO MARRIAGE."

DR. KREUTZMANN: "I do not perfectly agree with what Dr. Krotoszyner has said. I am inclined to believe that syphilis should forbid marriage within limits, which I place at more than two years. I know that others hold this opinion, that if syphilis exists, even with vigorous treatment, it will very often manifest itself after more than two years

and for this reason, if anybody comes to me to-day and asks my advice about entering matrimony, I advise them to wait longer than two years under any and all circumstances.

"As far as gonorrhoea goes from my own personal experience I am a little at variance with Dr. Krotoszyner. Many young girls are afraid of marriage because of a dread of gonorrhoea, or of fear of becoming sick, as so many of their friends do. These troubles are not always to be referred to the husband. There are a great many other things which may cause these results. It is a very common practice for young women, entering upon marriage to do so with the intention of not having any children, and, to my mind, this is the cause of much suffering. They indulge in every sort of practice to get rid of the fruit of gestation.

"As far as gonorrhoea is concerned, we know that after a certain time the pus becomes non-infectious and I am not quite sure whether we should declare every secretion from the male or female patient, showing stains of bacteria, to be really gonorrhoeal. I know that it is difficult to prove in certain cases that gonorrhoea was transmitted from husband to wife, and the cases, in which it has been clearly demonstrated, are not very many. I doubt whether it is really possible for a man, who, after having had gonorrhoea for six or ten years, marries, to infect his wife as a result of his old trouble."

DR. DUDLEY TAIT: "Dr. Krotoszyner's communication is a most timely one, for we all know that one of the earliest and most certain results of the recent war will be the wholesale importation of venereal disease, the course of which may hardly be expected to improve by a change from a tropical to a mild climate. It is to be regretted that the quarantine officers, Federal and State, cannot devise some means of subdividing the task of inspecting the various forms of pox. By so doing the local Board of Health might possibly convince a few physicians of the usefulness of such an office. In regard to the treatment of syphilis, Dr. Krotoszyner referred to a very practical point: the use of mercury, in preference to

iodides, during pregnancy. By all means use mercury under these circumstances; it is vastly superior to iodides. In fact the iodides are frequently without effect. The hyperdermatic medication is the best during pregnancy."

DR. PHILIP KING BROWN: "In regard to the case that Dr. Krostoszyner referred to, where certain apparent chancroids responded readily to antisymphilitic treatment, there are prominent men, notably Kaposi in Vienna, who believe that all chancroids are syphilitic. The recent test for syphilis proposed by Justus affords a means of diagnosis in these cases which is a very easy one. It consists in determining the percentage of hemoglobin in a suspected case and then giving a large inunction of mercury. The next day, if the case is syphilitic, and has not previously undergone mercurial treatment, there is a very marked reduction of the hemoglobin. In a recent case in which I tried it I gave one dram. The hemoglobin the day I gave it was 80 per cent and the next day 55 per cent, being a very marked demonstration of Justus' test."

DR. KROTOSZYNER: "The question is, whether these ulcers are tubercular or syphilitic. That question can only be decided by the aid of the pathologist, I will admit that there is at present, a great over-estimation of the more artificial part of diagnosis and an under-rating of the clinical part. The pathologist, though, forms a very valuable aid to arrive at the correct diagnosis. The cystoscope, for instance is very valuable in order to diagnose obscure kidney diseases of a surgical nature. On the other hand, those men, who fifty years ago were able to diagnose diseases without our artificial instruments, and without the aid that the laboratory renders for diagnostic purposes, are the more to be admired for the skill, which they exhibited at arriving at a diagnosis with their simple means."

DR. TAIT: "Modern surgery has only been rendered possible by the work done in the laboratories."

Dr. E. G. Frisbie presented a case of "TUBERCULOUS ULCERATION OF THE RECTUM AND COLON," and read a paper on the same.

Dr. William Fitch Cheney spoke on "CEREBROSPINAL MENINGITIS" with special reference to lumbar puncture as an aid to diagnosis. He also exhibited slides showing the diplococcus intracellularis. Introductory to his demonstration with the microscope, Dr. Cheney said:

"I presented to the Society two months ago, a paper on the diagnosis of cerebrospinal meningitis, and advocated at that time, lumbar puncture as a very valuable means of diagnosis. On Sunday morning last, I was asked to see a case, in consultation, of a child three and one-half years old that had been taken ill only the Friday evening previous, with vomiting, digestive symptoms and some fever. During Friday night and Saturday the child was inclined to sleep a great deal. During Saturday night there was a general convulsion, which condition persisted all that night. When I saw the child Sunday, minor convulsions were occurring almost constantly, and the condition was one of deep coma. At noon I made, with the approval of the consulting physicians, a lumbar puncture and found in the fluid the typical intracellularis diplococcus. This diplococcus has been positively identified by several methods, and there can be no doubt that it is the meningococcus. The importance of this discovery lies in the fact that it gives positive proof of the presence of epidemic cerebro-spinal meningitis here in San Francisco. This had been already discovered once previously in a case of Dr. Hunkin's; so that here are two cases within a space of two weeks where positively the meningococcus has been demonstrated."

DR. TAIT: "I would like to ask a question of our distinguished pathologists, in as much as in every case of cerebrospinal meningitis the seat of the infection is the pia-arachnoid or beneath it, how can lumbar puncture have any therapeutical effect? It surely does not drain the infected space."

DR. CHENEY: "By relieving pressure, it relieves the symptoms caused by pressure."

DR. KELLY: "I had the pleasure of seeing Dr. Frisbie's case during treat-

ment. You could see large cicatrices and that there had been large ulcerations. There were apparently no strictures in the lumen of the bowel within the range of the rectoscope. The mucous layer alone was involved. The treatment by local applications is certainly a vindication for the instrument, shown with the case, and I believe that in the future, rectal ulcerations and those in the large bowel low down, will be treated by local applications."

DR. OPHULS: "I should like to ask the doctor whether there were any signs of primary tubercular trouble in the lungs. As far as I know, there are hardly any cases on record, of primary tubercular disease of rectum, and sigmoid-flexure. As far as I understood the doctor, the tuberculous nature was not established by finding the tubercle bacilli, but I may have made a mistake in that."

DR. HUNTINGTON: "I take the position of Dr. Krotoszyner. I endeavor to make myself clear upon this point. I certainly will not deny myself access to any and all of the modern appliances, but I still must insist that we are not justified in permitting a diagnosis to go unchallenged when supported only by the evidences furnished by technical apparatus."

DR. PHILIP KING BROWN: "I remember at a meeting of this Society, that Dr. Sherman said that since the introduction of the gauze bandage, the real art of bandaging has been lost. I think that is so. I rarely see a good stiff linen bandage put on well. The same thing seems to me to threaten physical diagnosis since the general use of chemical and microscopical examinations. It seems to me that a great many people, even with much clinical experience, are ready to throw aside entirely their own clinical experience and give preference to the opinion of anyone who claims to be a pathologist. One case I have in mind is that of a friend of mine who was consumptive. A pathologist examined the patient's blood and from that examination he said that the case was malaria. I had the opportunity of seeing the specimens and I am positive that it was not malaria, and yet there were half a dozen

men of good standing in this community, who were willing to accept the opinion of the pathologist that the peculiar symptoms were due to malaria. Far be it from me to depreciate clinical pathology, but in a town like this, where so much irresponsible work is being done in all departments of medicine, it is unfortunate that the exact part of it should be brought into disrepute as it certainly will be under the present order of things."

DR. HUNKIN: "A case that we had at the Children's Hospital about a year ago comes to my mind. It was an amputation at the hip joint. The structures cut, looked very peculiar to us, and specimens were sent to the laboratory. The report came back that it was round celled sarcoma. We sent another specimen later and got the report that it was positively sarcoma. The boy got well and now the tumor has very greatly lessened. The boy is in the best of health and I should think is at the present time fully double the weight he was the day after the operation. So clinically one would not think that he has a malignant tumor."

DR. OPHULS: "Of course the means of diagnosis of the pathologists are limited in many respects, but I think that on account of failure of pathologists to establish diagnosis in some few cases it would not be reasonable to throw aside entirely the pathologist."

DR. KROTOSZYNER: "I only wish to say in regard to Dr. Kreutzmann's remarks, that I have purposely refrained from stipulating a particular length of time which should elapse between contraction of the disease and matrimony. Some authors say two years, some three and some five, should elapse. Some even deny the right altogether to a man, who has ever been syphilitic, to marry. As Hutchinson says, 'If we should deny the right of marriage to all patients that ever had contracted syphilis, our conduct in doing so would not be justifiable, as we would prevent innumerable men and woman from happiness.'

"In regard to infection with gonorrhoea, I did not wish to illustrate this question from the standpoint of a gynecologist, but I agree with Dr. Kreutzmann that the statement that all diseases

of the female organs are due to the gonococcus has no support. I wanted to emphasize that not enough attention is paid by the general physician to warning men with a history of gonorrhœa against matrimony, unless being assured that they are sound. My particular aim was to claim for gonorrhœa the same right as for syphilis, that is, the man should submit to examination before marrying, just as he should in a case of syphilis."

DR. HUNTINGTON: "I only saw a small upper ulceration or cicatrix, as it now presents itself. I was impressed with the fact that the lesion was confined to the mucous coat alone, and the question arose in my mind as to the correctness of the diagnosis. Tuberculous ulceration of the bowel is invariably marked by infiltration and destruction of the deeper layers of the bowel. Furthermore, such a lesion is usually attended by cicatrical contraction of the organ.

"So far as the joint lesions are concerned, they may be readily accounted for by septic infection, as we know that ulceration of the bowel is very apt to give rise to such manifestations. I am inclined to believe that the apparatus shown in connection with this case will be found efficient, both in diagnosis and in treatment of such lesions as are here presented, but I, personally, should not dare to base a diagnosis upon the evidence obtained through such an apparatus alone. The general clinical history must be relied upon to a very considerable extent. I am becoming inclined to depend upon clinical appearances quite as much as upon the so-called official aids. Furthermore, I believe that this opinion is being held very largely, and that the pendulum of professional opinion is swinging strongly in this direction to-day.

"The question was asked as to whether I would occupy the same position with relation to the cystoscope as I would with the case under observation. I say emphatically that I would. I am just as positive in this position. Clinical experience may be overlooked in carrying out the dictates of modern pathologists."

DR. FRISBIE: "With regard to the

use of the microscope, I think that the gentleman misunderstood me or I omitted something. There were repeated examinations made. The pathologist was at a disadvantage because the pieces obtained were small. The place from which I took the piece, bled so freely that I did not deem it right to take more from the patient who was so exsanguinated. I will say that the second mass, which was subjected to two different microscopists, showed one or two tubercle bacilli in two of the specimens, and the detritus looked tubercular, but it seems to me that if you see but one bacillus in a specimen it is rather slim evidence to hang a diagnosis on. When the patella became involved, I had no doubt that it was tuberculous. Dr. Ophüls asked if the primary lesion was in the bowel. I think it was. He has never had anything to draw attention to the lungs. I have examined them and they are perfectly sound. He never had cough or expectoration. I will say also that two different pathologists, to whom I subjected the specimens, said that the mass looked like tubercular detritus. We know that in the discharge from tubercular bones the bacillus cannot always be demonstrated.

"As to the amœbæ, no examination was made.

"We should avail ourselves of all means of diagnosis at our command. I certainly shall avail myself of the aid of the pathologist in any case where there is difficulty in making diagnosis.

"As far as the syphilitic nature of the ulceration goes, the history of the case gives no evidence of syphilis, and I have made careful inquiry and believe I have the true facts."

DR. PHILIP KING BROWN: "It is a matter of remarkable interest in Dr. Hunkin's case that the fluid was clear, more like the fluid of tubercular meningitis, but I presume that the chronic nature of the case was responsible for that. It was in the second attack that the fluid was withdrawn.

"Dr. Cheney's case was interesting in contrast to this, in that at the end of forty-eight hours the organisms were found and the discharge was purulent,

the condition resembling more the streptococcus or pneumococcus infection. In the cases reported by Councilman, positive diagnosis by lumbar puncture, in the average case, was made on the sixth day. Undoubtedly Dr. Cheney's case was an excessively severe one. It gave the history of having had a discharge from the nose for some time, I believe. It has been suggested that the entrance of the organism into the body was through the nose."

DR. CHENEY: "I have very little to add. I think I forgot to say that this child was dead. The disease was only three days and a few hours in duration. I think that lumbar puncture should be more frequently performed than it is. By Dr. Osler it has recently been recommended as a valuable therapeutic measure. He withdraws thirty or forty or even as high as one hundred cubic centimeters, and expresses confidence that the patient has been improved by the procedure."

DR. HUNKIN: "In making lumbar puncture, I used the needle on a piece of rubber with a glass tube at the end. I did this several years ago with tuberculous patients. I simply let the fluid rise in the tube and note the highest level, then allow it to run in the jar and every now and then try to see at what level the fluid is in the tube, and when the level of the fluid in the tube was equal to the level of the fluid in the canal, there was no pressure. In my case, the lumbar puncture was made very readily and caused no pain to the child. After it was made, the child had no more convulsions. I think that if it had been done earlier there might have been more hope for the case."

DR. TAIT: "I wish to congratulate Dr. Frisbie on the excellent result obtained. In the majority of cases of extensive rectal ulcerations, it is well nigh impossible to get a satisfactory result without resorting to colostomy. This is the surprising feature in Dr. Frisbie's case, no diversion of the intestinal contents having been made. The nature of the lesions is not evident, however. They may be of syphilitic origin, but I cannot

base this assertion on any reliable facts. I merely suggest it as a possibility.

CALIFORNIA ACADEMY OF MEDICINE—JUNE, 1899.

SYPHILIS.

Drs. Dudley Tait and Guido Caglieri exhibited a patient with the following history: The patient, a man, 49 years of age, a farmer by occupation, living in the San Joaquin Valley, about one year ago noticed a swelling in the right subclavicular region, just above the breast; this attained the size of a nut, later suppurated and after three months closed. Five months ago a swelling appeared in the right groin, which reached the size of an English walnut; it broke down, was incised and drained, but, failing to heal, the gland was partially excised. Soon after there appeared enlargements in the left sub-maxillary and right preauricular regions. These suppurated, broke down and exhibited an amount of necrotic tissue. One month later there was suppuration of the glands in the right supraclavicular region. Ten days before entering the hospital, swelling appeared in the left tonsillar region. Careful physical examination revealed nothing abnormal in the chest or abdomen; the urine was normal and the special senses were not in any way affected. The diagnosis was obscure. At Fresno an "analysis" of some pus from one of the suppurating lesions had been made with the statement that tubercular bacilli had been found. This is, however, quite improbable, not only for the reason that it is very seldom and with extreme difficulty that tubercular bacilli can be found in pus from ulcerating areas and suppurating glands, but also because the case does not seem to be one of tubercular lesion. For a time glanders was considered, the patient presenting many characteristic points of resemblance to a case of chronic farcy reported by me a short time ago. This diagnosis was very soon abandoned, however. An injection of Mallein instead of producing an increase of temperature caused a marked decrease. Though no syphilitic history

could be obtained, I concluded the case to be one of syphilitic lesion, of an unusual sort, and concluded to make use of intravenous injections. Potassium iodid was tried for two days, but resulted in such a severe eruption that it had to be abandoned. A one in two hundred solution of cyanide of mercury was employed, the quantity injected at each time ranging from 1.25 to 6.05 gms. After two injections had been made the lesions were about fifty per cent improved; the necrotic tissue had been entirely discharged and healing was well advanced. At the present time he has had altogether four injections in the right median basilic vein, and improvement is continuous and rapid; the glands in the groin have almost disappeared. I have since noted that Mallein is of no diagnostic value in man.

Dr. Guido Caglieri, in discussion, said: "There can be no doubt that the statement coming from Fresno, to the effect that tubercular bacilli had been found in the glandular pus, was incorrect. It is almost impossible to find the bacilli in glandular pus, for one thing, and for another the case was not at all like the picture, clinically, of tubercular trouble. It is quite possible that some other organism may have been noticed and mistaken for the tubercular bacilli. Quite a number of organisms have been recognized, lately, and described as closely resembling the tubercular bacillus. It is at least possible that one of these was noted, though even this is problematical."

Dr. Harold Brunn said: "I should like to call attention to the value of the hemoglobin test for syphilis in these cases where the diagnosis is somewhat obscure or impossible to get at from the history. I have made use of it in two cases recently with very gratifying results. The last case occurred in a patient, a man of family, from whom no history of infection could be obtained. The wife was perfectly well and so were the children. An ulcerating area appeared on the upper lip which might, from the appearance and course of development, have been an epithelioma, though it was not characteristic of this

lesion. I tested the blood and found about 80 to 85 per cent hemoglobin. I then had the man rub in about a drachm of mercury at night and the next morning the blood examination showed a drop in the hemoglobin to 50 to 55 per cent. Three weeks later, under continued syphilitic treatment, the ulcer had entirely healed. The test is of no value if the patient is under treatment by mercury, and I believe it is also negative unless in the presence of an active lesion, but under proper circumstances I think it bids fair to give excellent results. In a case of active lesion, the patient not being under any treatment, a good sized dose of mercury should show a drop in the amount of hemoglobin within 12 to 24 hours of from 15 to 35 per cent."

Dr. D. W. Montgomery said: "I have found great difficulty in using the Fleischl apparatus. I tried for some time to obtain a normal standard for comparison, but without avail. I found in no case that I could get a reading of more than 85 per cent hemoglobin even in a perfectly healthy man. It may be that I lack the technical skill in handling the instrument, but all my efforts were negative."

Dr. Dudley Tait said: "I have not personally made use of the apparatus, but I had one of the internes at the French Hospital make a test in a very clear and beautiful case of syphilis, with an active lesion and absolutely no history of mercurial treatment. The test was erroneously made, for, before the injection of mercury, the blood showed about 80 per cent hemoglobin, while after an intravenous injection of cyanide of mercury the Gower apparatus showed an increase of over 20 per cent."

Dr. Harold Brunn said: "The von Fleischl instrument is not accurate for blood, the index being decidedly too high. Never can one get a hemoglobin percentage of 100, and never in my experience in a normal case. The normal runs from 80 to 90 per cent, and the test should be made with that understanding. I do not consider the reading accurate within five, and so always give my readings as between two points on the scale, as for instance, 80 to 85 per cent. One

source of error is in the diaphragm opening. This may be somewhat reduced by making use of a paper cone, but even then there is a good chance for error. At the lower end of the scale the error is much larger and the results are very unreliable when this portion of the scale is in use."

COXIDOIDAL DISEASE.

Dr. D. W. Montgomery said: "In considering such a case as the one presented, it would be wise to remember the condition of coxidoidal disease, reported by Dr. Rixford some few years ago to the State Society. He found two cases, both occurring in the San Joaquin Valley, and both strongly resembling the case just reported by Dr. Tait. When Dr. Tait described the various lesions, which had presented themselves in the patient exhibited, I was quite of the opinion that he was about to present another case of this rare affection. Evidently the present case is not one of that disease, for it cleared up too well and too soon under the anti-syphilitic treatment. But in all such cases, coming especially from the San Joaquin Valley, the possibility of coxidoidal disease should not be forgotten and the specific germ, the coxidia, should be carefully looked for. The disease seems to be endemic in the San Joaquin Valley. Dr. Rixford reported two cases and I have since seen a third case, coming from the same locality and exhibiting the same general symptoms and clinical picture. The case I saw broke out with an eruption, strongly resembling buds, quite similar to potassium iodid poisoning or mycosis fungoides. There was considerable glandular involvement and the coxidia could be found in the glandular pus in great numbers.

"Two points of interest in these cases present themselves: First, the disease seems to first attack the lungs, or at least this was true in the cases reported by Rixford and in the case seen by myself. The affection subsequently involved the skin and later the glands. The abscesses may occur anywhere, in the lungs, the skin, the glands, and wherever they appear, there the coxidia may be found.

"Second, both of the cases reported

by Rixford occurred in Portuguese, who came from the same town in Portugal. For this reason there was some question that the disease had occurred in this country; it might have been contracted in Portugal and brought by the patients to the San Joaquin Valley. The case I have mentioned, however, tends to disprove this assumption and indicates that the disease is endemic in the valley. My patient was a German, who had been working on the Valley Road, and the locality where he contracted the disease is unknown, as he was traveling about a good deal.

"The coxidia has been thought by some observers to be a yeast germ, and not an animal parasite. This I think is not the case, for it seems to be subject to endogenous reproduction. I have tried to grow the germ, but unsuccessfully on any culture medium at hand. It would not grow on agar. Other observers have also found great difficulty in making cultures. I injected a rabbit with some of the pus, but I have not had time to ascertain whether it has become affected. So far as the particular case presented by Dr. Tait is concerned, I am sure the diagnosis of syphilis was correct as the treatment is certainly a most brilliant success."

LUPUS AND TUBERCULOSIS TREATED BY X-RAY.

Dr. Philip Mills Jones presented a patient and said: "I desire to present this case and have you all carefully examine the patient for the reason that the condition is rapidly improving and I do not wish to continue the treatment until the case has been inspected and further progress can be noted by others than myself.

"The patient was sent to me by Dr. Martin Regensburger with the diagnosis of lupus. The woman is about 48 years of age, a native of Bordeaux, and has had the affection of the face, which you see for 36 years. It commenced when she was a child of 12 and has persistently increased in extent until the present time, in spite of all effort. Very many specialists have had the patient under their charge with no benefit. I commenced treatment by exposure to x-rays some

two months ago. The face, save the right side, which you see is involved from the hair line to below the lower margin of the jaw, including the entire ear, was protected by means of a heavy lead plate, perforated with a hole to correspond with the area involved. The woman was then exposed within three or four inches of a low vacuum x-ray tube from 2 to 8 minutes, three times a week. The length of the exposure and the frequency of the treatments was decided largely by the effect upon the skin; when too much reddened by the rays, the exposures were made shorter and less frequent. A slight dermatitis developed just below the eye, and a slight conjunctivitis was also produced by the rays, a few of which managed to strike upon the conjunctiva at one or two sittings. These troubles have now entirely passed, and indeed were but trifling in the first instance. The maximum intensity of the rays was directed toward the lower portion of the area involved, and this part of the affection, you will see, is very materially better than is the ear and the upper portion. Indeed it is so rapidly improving that you can form but little idea of the condition when the treatment was commenced. At that time the whole area was as badly involved as the worst portion present now. The lower area is almost well, the nodules have disappeared and the skin is regaining its soft and pliable nature. I shall continue the treatment and will present the patient at a subsequent meeting, after there has been another period of exposures.

"This is the second case of lupus I have treated by means of x-ray exposure. The first case was entirely cured of a lesion on the forehead, which has lasted, in spite of all treatment, for seven years. He has been away for four months now, but reports no change in the appearance of the former lesion. I am quite certain that this case, from the change already noted and from the experience of the former patient, will follow the same course and get well. Whether the cure will be a permanent one, however, is another thing and a question impossible to say until the lapse of sufficient time. That the exposure will, however, relieve these conditions, seems to me quite certain."

Dr. D. W. Montgomery said: "This seems to be a clear case of lupus. The history, the nodules and the general clinical picture all go to confirm the diagnosis. There is, however, a great difference between lupus and skin tuberculosis, clinically if not etiologically, and whether both diseases are caused by the tubercular bacillus is still an open question. The tubercular bacillus is, however, found in both lesions, and, if they will both yield to x-ray exposure, it leads one to question whether the exposure to these rays would not be of benefit in tubercular lesions of other parts. Lupus is found to commence before the 15th year, but tuberculosis of the skin may commence at any age. The question of the two diseases being the same is disputed by many good observers. I am inclined to strongly believe that they are not the same, clinically, even should they prove to be etiologically. Lupus, true lupus, is a very rare disease in this country, and particularly so in California. I do not remember to have ever seen a case of true lupus occurring in a native; but tuberculosis of the skin is fairly common."

Dr. Jones said: "According to the differentiation made by Dr. Montgomery, the first case I treated in this way was not true lupus, but was rather a tubercular lesion of the skin, for it occurred in a man of about 50 years. It was, however, entirely healed by the x-ray exposure. In regard to what Dr. Montgomery has said of tuberculosis in other regions, I have exposed three cases of clear tubercular lesion of the lungs, in all of which the bacilli could be found in good numbers in the sputum. The patients all improved, the bacilli disappeared from the sputum, the night temperatures ceased, and now the patients say that they feel perfectly well. I do not say that the patients were cured by the x-ray exposure, for it may have been a spontaneous cure in all, but they certainly are now well, and also just as certainly had tuberculosis of the lungs at the time treatment was commenced."

SYPHILITIC EPIDIDYMITIS.

Drs. Dudley Tait and Caglieri presented a specimen of syphilitic epididy-

mitis. The patient, a Chinaman, gave the following history: Age, 25 years; contracted syphilis four and one-half years ago; has had several series of papulo-squamous eruptions since that time. Has received no treatment. At present has a few papules on his back and chest. No bone or visceral lesions are present. Two weeks prior to examination he noticed for the first time a swelling in the right epididymis, the size of a bean, and sufficiently painful to compel him to ask for assistance. A suspensory was advised by the attending physician who diagnosed gonorrhœal epididymitis. Examination six days later showed swelling in the upper portion of the epididymis, a hard, indolent nodule, with a diffuse swelling diminishing downward toward the globus minor. Forcible palpation elicited slight pain. Testicle apparently normal, as was also the cord. The opposite side was healthy. There was no history and no sign of gonorrhœa and no history of traumatism. Syphilitic epididymitis was diagnosed. The patient refused any treatment by mercury and demanded extirpation of the diseased organ. This was at once done, the result being a very fine specimen of an unusually rare condition, and, of course, immediate and entire relief. Microscopic sections were prepared by Dr. Wm. Ophüls. The appearance of the sections is peculiar. A diffuse sclerosis, together with arteritis, both endo and peri, may be very clearly seen in any of the sections.

A few words as to the status of this lesion may not be out of place, for the reason that its very occurrence has been denied and disputed by some writers and no mention of it is to be found in the English text-books. For a long time the existence of syphilitic epididymitis was bitterly contested, especially by certain Germans (Sigmund and Kocher in particular). The French were the first to describe the affection. Dron, in 1863, gave a very excellent account of this complication of syphilis; Fournier described the condition and gave it the name of "*epididyme secondaire*;" Balme, in his inaugural thesis, 1876, also treated of this lesion; other writers of note on

syphilitic epididymitis are Mauriac, Tédénat, Cuilleret (Lyons, 1890), Reclus, in "*Syphilis of the Testicle*," and Fournier (1899).

The characteristic features of the disease are, first, its location, it being almost always limited to the epididymis and seldom extending to the testicle; second, its early development. Fournier noted it six times during the seventh month; twice in the first ten or eleven months; Balme eight times in from the second to the fourth month and six times in from the eighth to the fourteenth month; eight times between the second and the eighth year of the disease. It is generally unilateral and belongs to both the secondary and the tertiary periods. On account of the frequency of the syphilitic lesion of the testicle during the secondary period, and of the frequent occurrence of syphilitic epididymitis during the tertiary period, Reclus proposed the appellation "*syphilitic epididymitis*," instead of "*epididyme secondaire*" of Fournier.

It is mostly found in grave secondary, untreated syphilis. The lesion is generally not noticed by the patient in the early stages; it is usually first detected by the physician. This reminds one of Ricord's advice to physicians in charge of syphilitic wards; "watch the patients' testicles more than the patients themselves." The nodule generally involves the head of the epididymis contrary to tubercular lesions, which have a predilection for the tail of the epididymis. The nodule is hard, resistant and indolent, except in certain rare instances where the invasion is quiescent. When the lesions have been left to themselves, without treatment, there may occur a slight hydrocele. The nodular mass increases to the size of a nut, seldom larger, then remains stationary, retaining its hardness. Diffuse infiltration is very rare. Fournier likens the nodule to a bean in a healthy epididymis. Syphilitic epididymitis does not interfere with the spermatic functions. In one of Dron's cases with bilateral lesions, spermatozoa were present. The knowledge of these lesions of the epididymis is of considerable importance, especially in relation to

tuberculosis. The evolution of tubercular lesions is more diffuse, the nodules are multiple, the results of palpation are altogether different; the cord, prostate and vesicles are frequently involved and as already mentioned the lesions most frequently involve the tail end of the epididymis. The differentiation from gonorrhœal epididymitis in a syphilitic subject may give rise to some doubt, but its invasion is generally more acute and the lesions more diffuse and painful. The results of mercurial treatment are miraculous in syphilitic epididymitis. The iodid is seldom necessary.

SARCOMA OF TESTIS.

Dr. Tait also presented another pathologic testicle, with the following history: The patient, a Chinaman, age 74 years, a merchant, presented himself with a scrotal tumor about the size of an adult's head. It was irregular in outline and in consistence and extended to the external orifice of the inguinal canal. The skin was normal and not adherent. The veins were slightly enlarged; there was no enlargement of the inguinal glands. No lumbar glands were discernible. The attending physician had tapped the mass at the lowest point, anteriorly, thinking it to be a hydrocele. A few drops of cystic fluid slightly sanguinolent escaped. The tumor was extirpated without difficulty after securing the cord and vessels *en masse*; the tumor was stripped downwards. It proved to be the very rare sarcoma of the testicle. Gurlt, 23 years ago in the Vienna Hospital, records 16,637 tumors. Of these, 848 were sarcoma; 45 of the testicle; 11,131 were carcinoma, with 64 of the testicle. German and English records show but 114. Sarcoma of the testis exhibits some interesting features. The nearest glands are almost always involved, which partly explains the extreme frequency of abdominal involvement through metastasis. Like carcinoma, the disease does not extend to the contiguous tissues. There is generally a history of traumatism or retained testicle. As to the age of most common occurrence, Virchow thought the young and the old most commonly troubled, but Kober's statistics place the period of

greatest danger between the years of 20 and 50. Clinically it is impossible to make a differential diagnosis from carcinoma. It may be mistaken for hematocele or hydrocele, as in cases reported by Dupuytren and Kocher. Exploratory incision, under cocaine anesthesia, should always be made. Of course the prognosis is always grave, though the results of operation are frequently very gratifying. Kocher was the first to call attention to the fact that it is quite impossible to determine the prognosis from the microscopic sections, as the evolution of tumors of the testicle is very variable.

Dr. J. F. McCone said: "I removed a sarcoma of the testicle, some five years ago, that was very similar to the one presented by Dr. Tait. It was, however, only about one-half the size and there was in the sac about a half pint of fluid. Externally, the tumor measured 9 inches by 12 inches in circumference. The sarcoma itself was 5 inches long by 3 inches in diameter. The microscopic sections showed a round celled sarcoma, but some doubt has been thrown upon the diagnosis owing to the fact that the patient is still alive. Thirteen years before the patient had had gonorrhœa and orchitis, and eight years before there was some slight injury while wrestling. This was all the history that could be ascertained. The patient had been tapped twice for hydrocele by a homeœopathic physician, and at the second tapping he stated that the patient could not live very long, no matter what was done."

Dr. D. W. Montgomery said: "I do not exactly remember the microscopic picture, but I am sure the tumor was a round celled sarcoma, both microscopically and macroscopically. It is not at all fair to question the diagnosis simply because the patient has not yet died. I recall a similar, and very interesting case, which occurred in a patient of Dr. Chismore's some years ago. The patient was himself a doctor, and received an injury during a runaway accident. No trouble was noticed at the time, but later a lump appeared. It developed into a sarcoma which was removed by Dr. Chismore. One year later, however, the

patient died from abdominal involvement."

Dr. McCone said: "I would like to ask, in reference to the patient I operated upon, whether any cases are recorded of recurrence as late as five years after operation?"

Dr. Tait said: "I know of one case, recorded by Kober, of recurrence after 6 years."

TREATMENT OF HYDROCELE.

Dr. Tait then introduced the subject of treatment of hydrocele, as being somewhat akin to the matters just discussed. He said that each man seemed to have some special treatment, which he employed in all cases of hydrocele, irrespective of the etiology. The factor of causation did not seem to be very much considered, so far as he could ascertain, and all cases were treated alike. In his opinion it was obviously improper to treat a hydrocele in an old man, where the fluid had been slow in accumulating and was probably due to some slight lesion of the tunica, as one would treat a similar condition in a young subject, the fluid accumulating more rapidly and indicating a decidedly different condition of causation (tuberculosis, cyst of epididymis, etc.). He strongly advocated the exploratory incision, under cocaine anesthesia, to determine the nature of the cause in all such cases, and then the modification of the treatment accordingly. The discussion was participated in by the members present.

RUPTURE OF INTERNAL CAROTID INTO CAVERNOUS SINUS—OPERATION—RECOVERY.

Dr. F. B. Eaton reported a case of UNUSUAL FRACTURE of the BASE of the SKULL, with certain eye symptoms. He said: "A man of about 26 years of age came to me some time ago, the history being about as follows: He had been struck on the side of the head by a man's fist, while walking along the street. The police were inclined to think the blow had been delivered by a 'jack,' and not simply by the fist; but this point is still an open question. The blow was not, however, severe enough to produce unconsciousness and the man went to his

home. He was simply a trifle dazed. The next morning there was pain in the left side and shoulder, with later pain in the left eye and headache. Four or five days later he experienced a feeling as if something were behind the eye trying to push it outward, and a week later internal strabismus was apparent. He could hear, constantly, a quite severe noise, seemingly in the head. After awhile the strabismus passed away, but later returned. When I saw the case, some four months after the injury the left eye protruded quite noticeably outward and downward; there was perceptible pulsation on touch and a loud bruit could be heard with the stethoscope. The conjunctiva was congested. The ophthalmoscope showed the disc to be somewhat paler than the other one, with vessels distended. The vision was but a little lowered. The vision of the right eye was 20-15ths, and of the left eye 20-20ths. I diagnosed the case as a fracture of the base of the skull, passing through the cavernous sinus, with a rupture of the internal carotid artery into the cavernous sinus. I did not have a chance to test the facial sensitiveness, but there was, or would shortly have been, some facial anesthesia, I am sure. I told him the only thing for him was to ligate the common carotid artery on the left side; the diagnosis and opinion were confirmed in consultation. He later went to St. Luke's Hospital, where the operation was done with entire relief of the troublesome symptoms."

MEDICO-CHIRURGICAL SOCIETY.

April 3, 1899.

Dr. C. N. Ellinwood read a paper entitled, "RYTHMICAL BORBORYGMI—HYSTERICAL."

DR. PERRY: "I would like to ask if you examined her stomach?"

DR. ELLINWOOD: "I did, and I found it to be perfectly normal, as is also the colon."

DR. LANE: "I witnessed the operation, and would like to say, that in addition, Dr. Ellinwood lifted out the bowel and examined it almost from the stomach to the lower end, with great

care, hoping that some constriction would be found, which I believe was not."

DR. ELLINWOOD: "The operation relieved the patient of the malady, for after she left the hospital, the symptoms ceased for one month.

"I would like to mention a circumstance, which occurred while the girl was in the country before she came to the city. While playing with some children, a man appeared and frightened her, and she ran a long distance to get home, and, before she reached there, she fell exhausted, but soon after she recovered and was out again. She attached no importance to that nor did any of the family, but it was only, perhaps, ten days after this that the neurosis commenced."

DR. OPHULS: "Was there any marked prolapsed condition of the colon?"

DR. ELLINWOOD: "No, there was not, no visible lesion that could account for these symptoms. Perti says that he has never found any relief for the symptom, and regarded it as incurable, as he found nothing that seemed to do it any good, but in his two cases, the paroxysms were only from two to four hours duration, differing from this one in which they were constant.

"I found in medical literature very few references to this subject. It is very seldom spoken of even in the treatment of hysteria, no one describing this form of the disease."

DR. LANE: "How far could you hear the sound?"

DR. ELLINWOOD: "Could hear it across the room, but it varied sometimes in force, but it was always audible at a considerable distance and increased by excitement. I tried everything that has been suggested, holding out the tongue as far as I could and for five minutes at a time, but it had no effect on the sound. I tried all the things I could think of, but lifting up the abdominal wall as far as possible, and pressing firmly seemed to stop it, and I had her get up while I held her this way and it inhibited the sound, and I applied firm pressure by an abdominal support, and she got up and walked around and no sound occurred. I found the wall on the left side of the

abdomen was much more sensitive to touch than any other part, there was slight anesthesia of the left arm, thorax and face."

DR. OPHULS: "Were there any spots of complete anesthesia?"

DR. ELLINWOOD: "No. I examined the legs and feet and found none, but much less sensitive on left than right side. She had crying, laughing and other ordinary manifestations of hysteria, and she is undoubtedly hysterical."

OBITUARY.

R. H. PLUMMER, M. D.

DR. RICHARD H. PLUMMER was born in Ohio and at the time of his death was in his fifty-ninth year. He studied medicine under the direction of Dr. L. C. Lane and received the degree of Doctor of Medicine from Toland Medical College, and also from Rush Medical College. He was a member of the Royal College of Surgeons, England. At an early period Dr. Plummer was Demonstrator of Anatomy in Toland Medical College, and, after the reorganization of the Medical Department of the University of the Pacific, he had charge of the dissecting room in that school, and, meantime, he was an active worker in the College Dispensary. His careful guardianship of this pioneer dispensary contributed much to the development of that important branch of instruction, which has since grown to such dimensions in Cooper Medical College. In 1883 Cooper Medical College was incorporated and Dr. Plummer became a member and director of the corporation and continued so until his death. In this institution he was appointed Professor of Anatomy; he was also one of the clinical teachers in the dispensary of Cooper Medical College. In the science of Anatomy his knowledge was faultlessly accurate; and as an instructor in the same he was eminently successful. He was a strict disciplinarian and no candidate for graduation received from him an approving vote who was not proficient in Anatomy. In the management of the affairs of Cooper Medical College he ever took a lively interest; and all work in this line entrusted to him was eminently well cared for. When Lane Hospital was built Dr. Plummer was chosen a manager, and in this position he was untiring and faithful to his trusts. For a time the hospital was placed under his supervision and much that is excellent in the

institution is due to his provident care. For a number of years Dr. Plummer was Secretary of the Board of Medical Examiners of the State of California and in that position his efforts were untiring in securing the legal registration of all regular physicians in California. The present official register and directory of physicians of the State is the work of Dr. Plummer. Through correspondence with every section of California he obtained the names of the extensive list of medical men contained in our official register. During his early professional life he was present at almost every session of our State Legislature in the interests of legislation which had for its object the suppression of quackery and the general elevation of the medical profession. He spent much time in our courts in the prosecution of charlatans. In these prosecutions he consumed so much time that it seriously interfered with the duties of his profession. In this duty he was the subject, more than once, of personal threats; these menaces instead of intimidating him served only to hasten the pursuit of their infamous authors. He was the author of the present law which legalizes dissection, and in securing the passage of this law he spent many days in Sacramento. He was President of the California State Medical Society for the year 1887. He was chairman of the committee of arrangements for the reception of the American Medical Association during its second visit to San Francisco, and in this position he discharged his duties with such ability that he received high commendation from the Association. He was a member of and he attended the Pan-American Congress during its first session, and he contributed a valuable paper which is incorporated in the proceedings of that Congress. He was a sincere and devoted friend to Cooper Medical College; in all his work and duties in the school he was untiringly active. During his last illness his thoughts were toward Cooper College, and in the last rational conversation he had with the writer he said he had been thinking about the need of providing for escapes from the rear of the building in case of fire. This is mentioned as a touching instance of his thoughtful care to the last for the College. Dr. Plummer had a high reverence for his profession; he was a strict adherent to, and a faithful observer of, its ethics. No one ever more scrupulously regarded the rights of his medical brethren; to be fair and just was the guiding rule of his life. He possessed high skill in the practice of medicine, and his patients received from his professional ministrations

the best that the healing art can give. In the death of Dr. Plummer the profession of medicine in our city has lost one of its best representatives; the sick have lost a skilled physician and a true friend, and Cooper College has lost from its ranks a man of ability, fidelity and untiring devotion. The sentiments here expressed are adopted by the members of the faculty and presented with their sympathy and condolence to Mrs. Plummer.

L. C. LANE,
C. N. ELLINWOOD,
STANLEY STILLMAN,
HENRY GIBBONS, JR.,
W. OPHULS.

COOPER MEDICAL COLLEGE, SAN FRANCISCO,
CAL., IN MEMORIAM.

WHEREAS; It has pleased almighty God in his infinite wisdom that he should take from our midst RICHARD H. PLUMMER, M. D., Professor of Anatomy in Cooper Medical College; and

WHEREAS, In his relations with us he has been ever kind and just, regarding our best interests with the great attention and punctilious care that was characteristic of him, and by his benevolence lending a charm to his teaching that will forever endear his memory to the many students he has guided; therefore be it

Resolved, That we extend our sympathies and offer our condolence to his bereaved family, and that we join our sorrow with that of the Faculty of this College which has lost so much in his untimely demise.

Resolved, That a copy of these resolutions be presented to his family and one to the Faculty of COOPER MEDICAL COLLEGE.

A. V. MILLER, Senior Class,
DONALD M. MCRAE, Junior Class,
PHILIP F. ABBOTT, Sophomore Class,
B. H. BELL, Freshman Class,
Committee.

Book Reviews.

THE ATLAS OF BACTERIOLOGY.
By Chas. Slater and E. J. Spitta both
of St. George's Hospital Medical
School, London.

This book offers to the student of bacteriology little that is of value. As a means of identifying bacteria, photogra-

phy has no advantage except as far as photographs of the characteristic methods of growth on media goes. Even in the photographing of bacteria in tissue, either the tissue or the bacteria must be sacrificed in definition. For this reason it is doubtful if photography will ever offer a means of accurate illustration, which is certainly most desirable in the study of bacteria in their relation to pathological histology.

The introductory chapter gives a clear and short account of the methods of making microphotographs under high magnification, and contains many very valuable suggestions, which will save much time, if strictly followed by anyone desiring to take up this work. The Welsbach light answers perfectly all requirements of light and is perhaps better than the calcium light recommended by the authors. The general types of bacteria in the book serve to show in a popular way something of the appearance of most of the common pathogenic organisms. It seems like stretching the title a little to include the plasmodium malariae in this book, although the usefulness of the photographs in this section is far greater than in the section on bacteriology. The statement that "the life cycle of certain forms is 24 hours giving rise to the quotidian type" is somewhat misleading. In general the atlas, although very incomplete to have such a title, is a very creditable presentation of the possibilities of photography in the direction of depiction of the forms of bacteria. It is probable even here to suggest that photographic reproductions on glazed paper would bring out the definition in the finer work far more accurately than it is brought out in these half-tone reproductions.

P. K. B.

Chicago, Assisted by Philo Leon Holland, M. D., Instructor in Clinical Neurology in the Northwestern University Medical School, Chicago, and Edward P. Carleton, B. S., Demonstrator of Histologic Neurology in the Northwestern University Medical School, Chicago. Illustrated with 258 Engravings, 6½x9½ inches. Pages xi-446. Extra Cloth, \$3.00. The F. A. Davis Co., Publishers, 1914-16 Cherry St., Philadelphia.

There is no one more competent to write on the anatomy of the brain than Professor Edinger. His valuable original researches on the subject inspire the utmost confidence in his statements, and his easy, lucid diction has attracted many readers to the five German editions of his work. The book has grown from small beginnings to ample proportions by the successive incorporation of new matter, and the enlargement of the present edition is especially due to the comprehensive treatment of the comparative morphology of the central nervous system, which will certainly appeal also to many students of neurology outside of the medical profession. It must be regretted that the author has omitted from the fifth edition the chapter on the technic of neurological histology which concluded the earlier editions. All workers in the field would be interested in learning the experiences of one so skilled as Professor Edinger with the more recent methods, especially as he has the inestimable advantage of laboring in the environment of the ingenious Weigert. The translation reads fairly smoothly. On page 19 and again on page 27 there is "methyl" blue instead of methylene blue. The use of the word "datum" on page 31 is surely not correct. On page 209 there is a misprint,— "greated" for "greater."

THE ANATOMY OF THE CENTRAL NERVOUS SYSTEM OF MAN AND OF VERTEBRATES IN GENERAL. By Prof. Ludwig Edinger, M. D., Frankfurt-on-the-Main. Translated from the Fifth German Edition by Winfield S. Hall, Ph. D., M. D., Professor of Physiology in the Northwestern Medical School,

AIDS TO ASEPTIC TECHNIQUE.

By A. D. Whiting, M. D., Assistant Surgeon to the German Hospital, Philadelphia. Price, \$1.00. J. B. Lippincott Co.

A. D. Whiting, M. D., Assistant Surgeon to the German Hospital, Philadelphia, is the author of one of the series of books on practical nursing published by

J. B. Lippincott Co. The book while not large contains the directions, which will make the nurse's work in the various duties before, during and after the operation easier to accomplish and better done.

It can be read by the surgeon himself with interest and profit. The standard of this nursing series will be maintained if works of equal merit are offered.

DISEASES OF THE EAR, NOSE AND THROAT, and Their Accessory Cavities. By Seth Scott Bishop, M. D., D. C. L., LL. D. Professor of Diseases of the Nose, Throat and Ear in the Illinois Medical College; Professor in the Chicago Post-Graduate Medical School and Hospital; Surgeon to the Post-Graduate Hospital, one of the Editors of the *Laryngoscope*, etc. Second Edition. Thoroughly Revised and Enlarged. Illustrated with Ninety-four Chromo-Lithographs and Two Hundred and Fifteen Half-tone and Photo-engravings. 6 1-2 by 9 1-2 inches. Pages xix-554. Extra Cloth \$4.00 net; Sheep or Half-Russia, \$5.00 net. The F. A. Davis Co., Publishers, 1914-16 Cherry St., Philadelphia.

The popularity of this work is evinced by the early appearance of a second edition. The author has succeeded admirably in compressing within the limits of a volume of 500 pages the most important facts appertaining to the ear, nose and throat. The space devoted to each topic is necessarily too limited for an exhaustive description, but while the book is designed mainly to supply the wants of the student and general practitioner, it will be found of value for hurried consultation by the specialist as an index to more extended research.

The chapter on "Related Diseases of the Eye and Nose" is of value in view of the paucity of such material in the older text-books. The absence of the usual anatomical description is not a serious omission, for such information can be obtained readily from works on anatomy,

and the space saved by this omission has been well utilized.

The recent developments in serum therapy have furnished material for a timely chapter, for which until now the practitioner has been dependent upon the journals.

The chapter on chronic suppuration of the ear is of great value as demonstrating how much can be accomplished by diligent conservative treatment, and as a protest against a too early resort to capital operations.

The subject of "Abscesses of the Brain and Other Complications of Middle-Ear Suppuration" is treated in a most concise and practical manner.

In no other book has this been placed in such convenient form for the use of students.

The treatment of septal deformities has received but brief mention and the statements are too general to serve as trustworthy guides for an operator.

The management of suppurative diseases of the antrum of Highmore has suffered also from lack of space.

Operative perforation of the sphenoidal sinus is mentioned, but the essential guides and cautions are not emphasized. Those not fully acquainted with its technique should be warned from undertaking this dangerous operation.

The technique of the operation of opening the frontal sinus is likewise missing. Doubtless the author has not compiled his book for those able to undertake such operations, but rather for the student who requires only a synopsis of the subject.

Some of the photographic illustrations, especially those giving undue prominence to the operator, while contributing nothing to a knowledge of the real steps of the operation, might well be spared. Whilst colored plates are powerless to portray the exact appearance of animal tissue, they serve to give a clearer idea of the subject, and the illustrations in this work are equal to those in the recent works of Jacobson and Moritz Schmidt.

OCCIDENTAL MEDICAL TIMES.

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READING NOTICES.

SERUM THERAPY.

Dr. Thomas Richard Fraser, in his address on medicine delivered at the last meeting of the British Medical Association, said: "Serum therapy has merely entered the first stage of its development, and already the results are of much value. The mortality of diphtheria has been reduced from forty to eight per cent; the mortality of hydrophobia has shrunk at least from sixteen to one per cent; the prognosis of tetanus has been deprived of much of its gloomy forebodings; the cure of pneumonia, of tubercle, of erysipelas, and of septicæmia, is on the eve of being realized; a complete demonstration has been obtained of the power of antivenins to prevent the toxic and lethal effects of venoms; and the experimental data are surely being accumulated for completing the greatest triumph of preventive medicine by the discovery of an anti-toxic serum for the cure of small-pox."—Medical Record.

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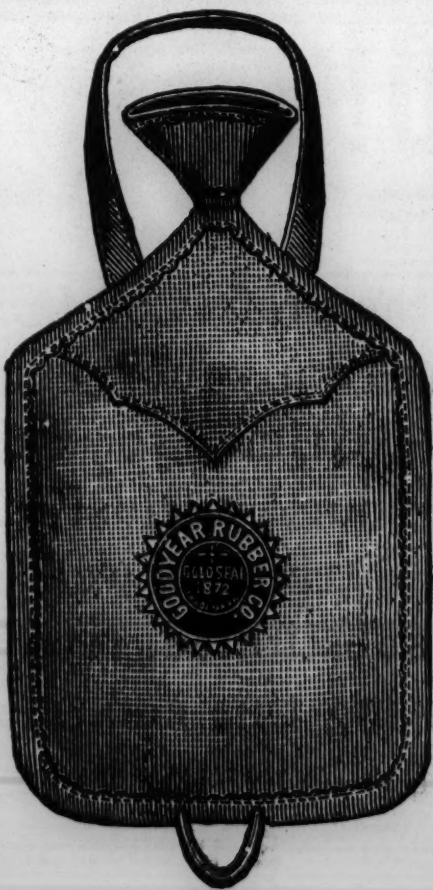
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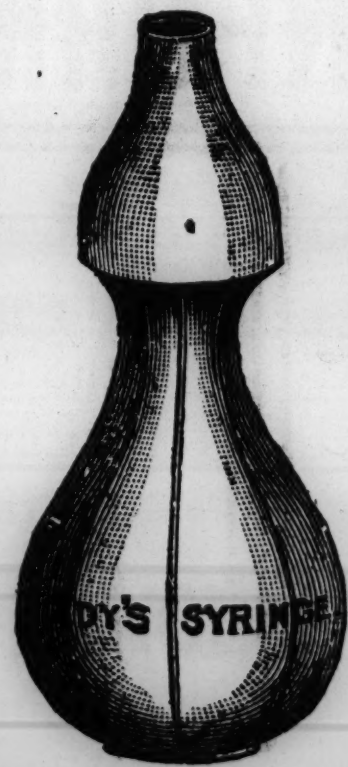
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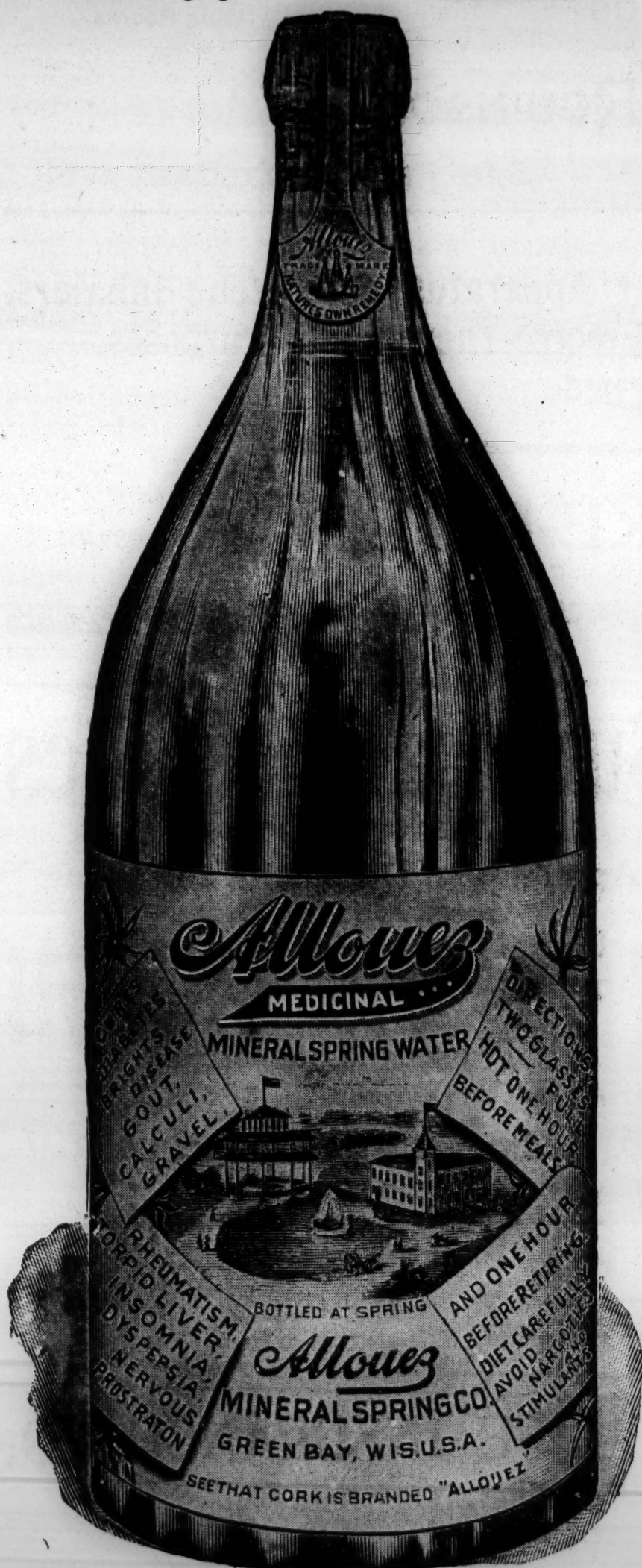
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Prof. CLIFFORD MITCHELL, A. M., M. D., in the Hahnemannian Monthly, Jan., 1897.

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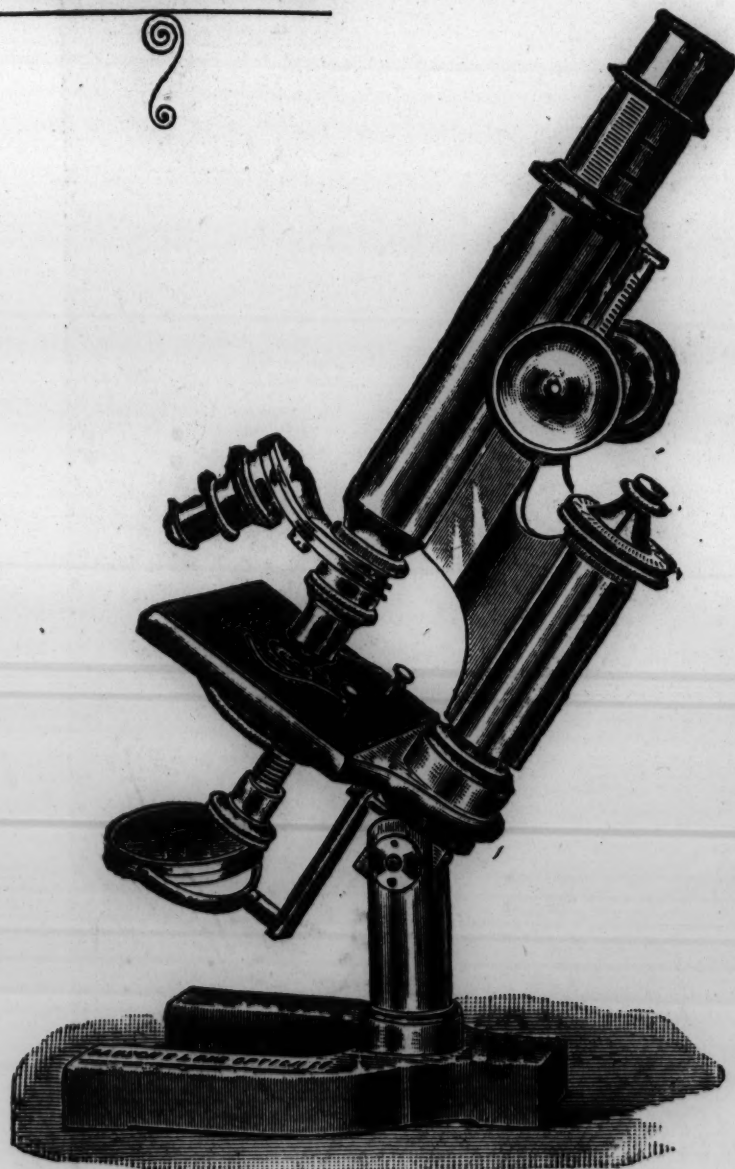


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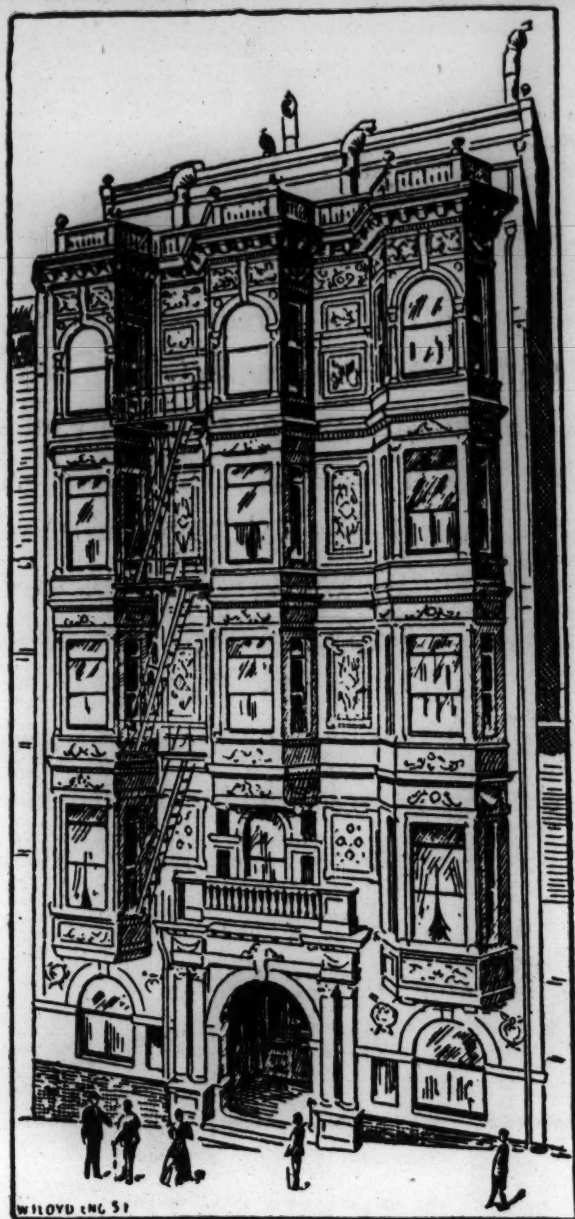
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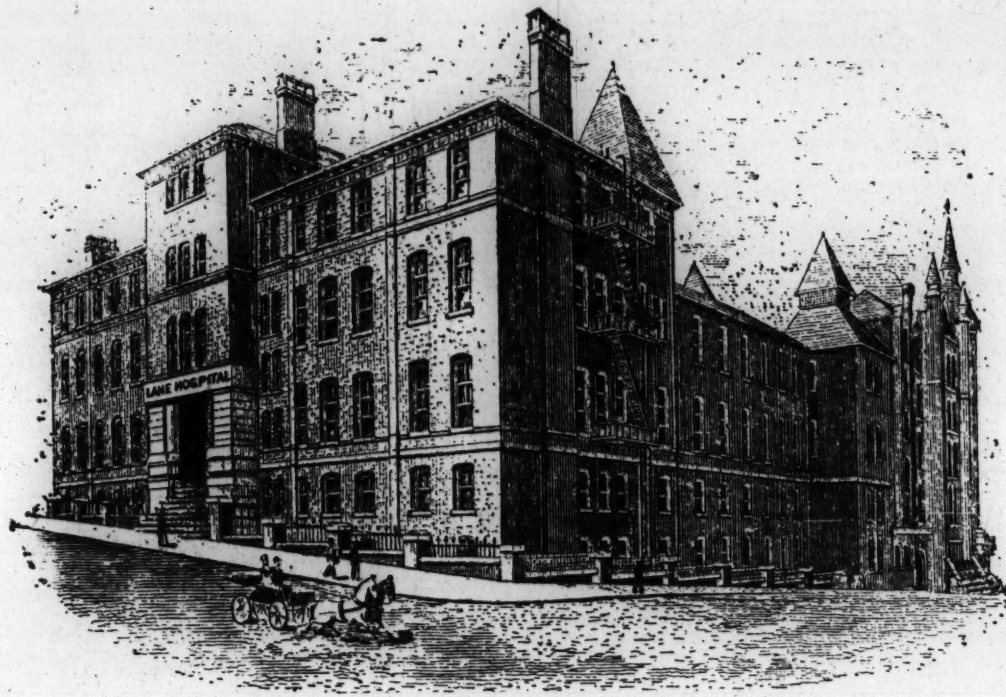
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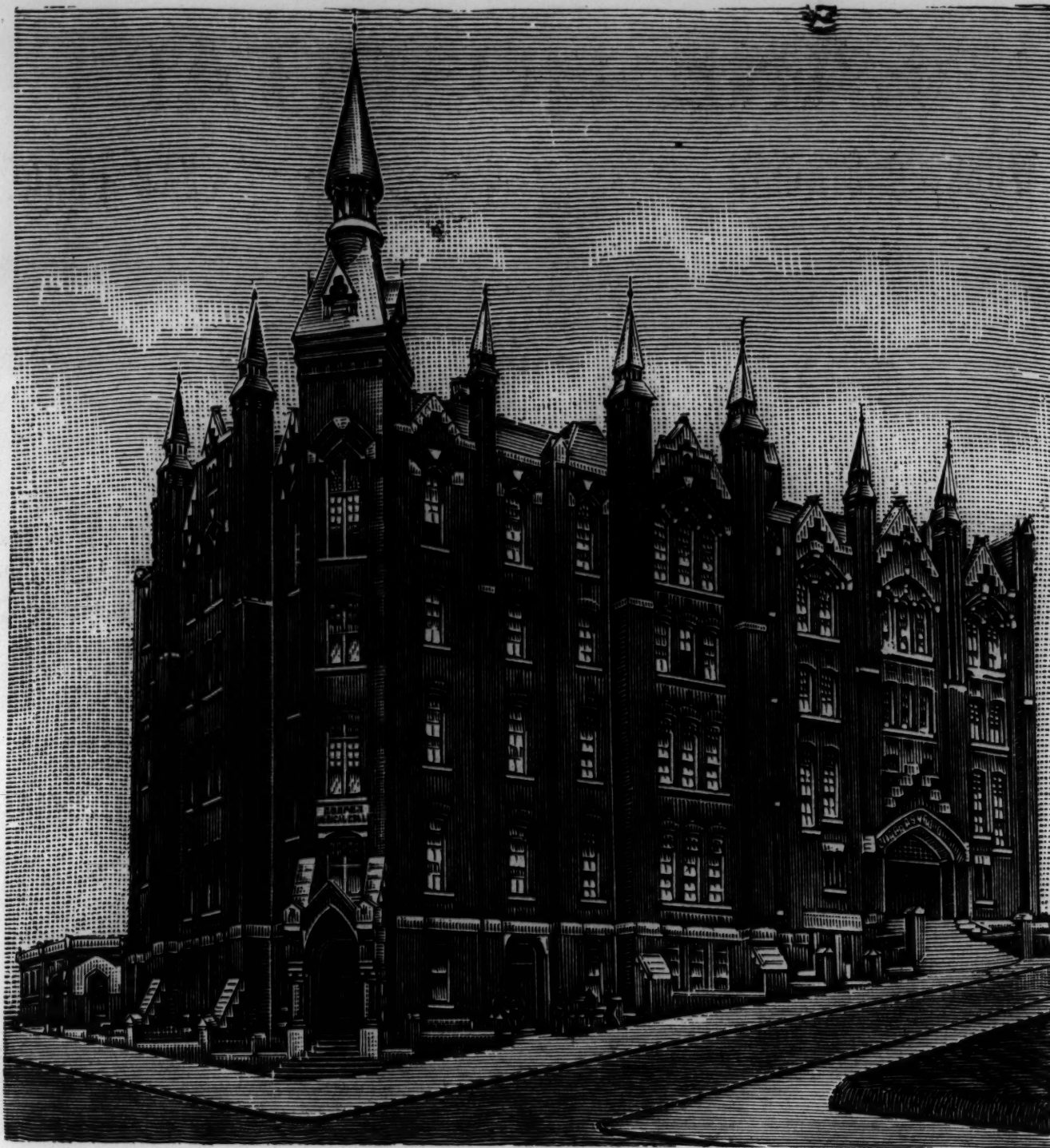
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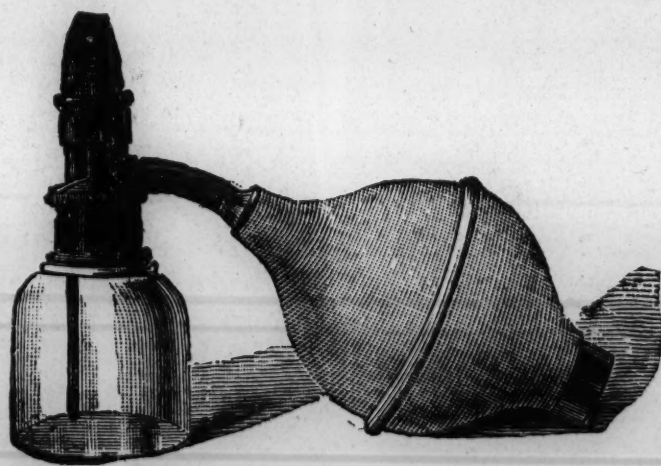


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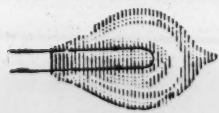
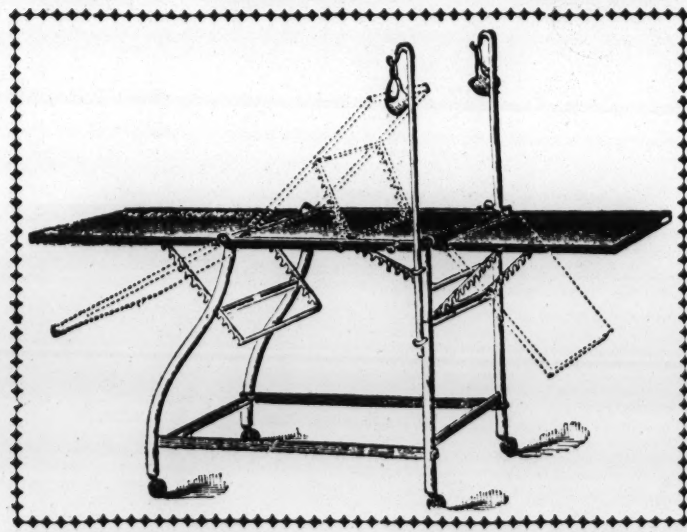
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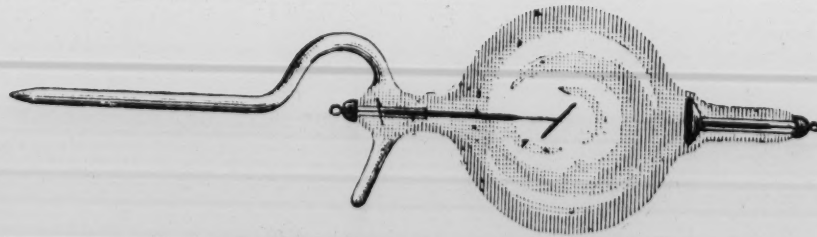
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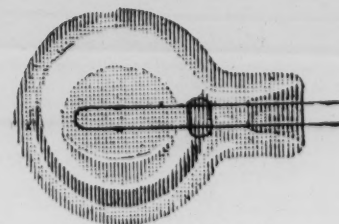
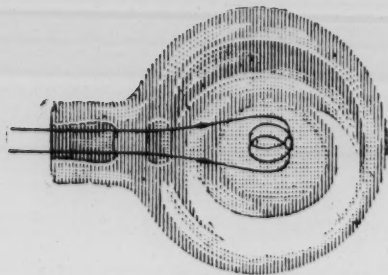
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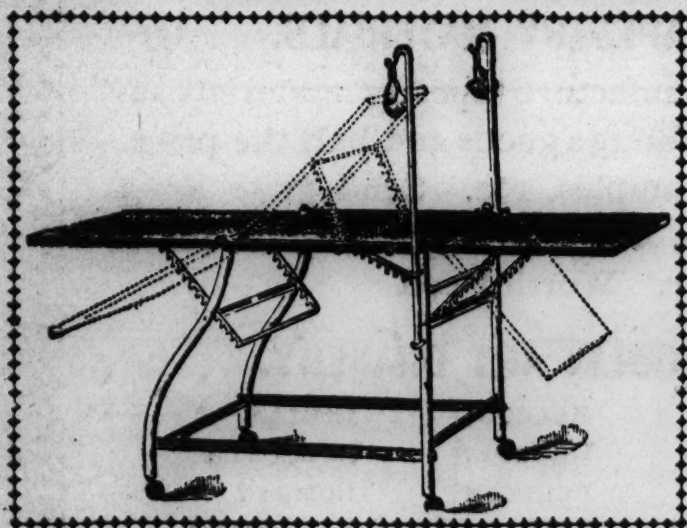
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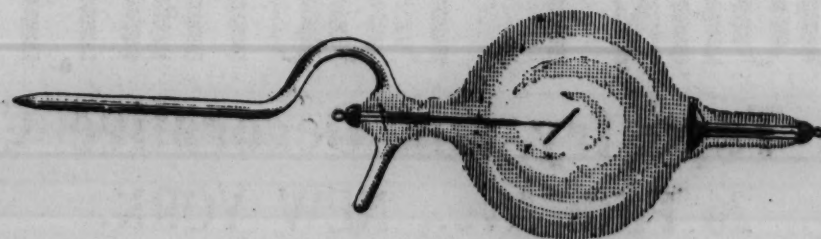
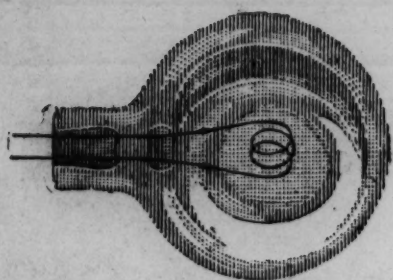
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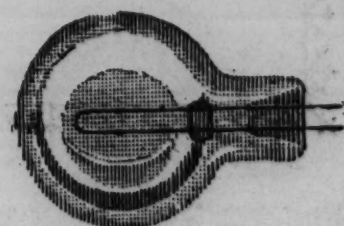
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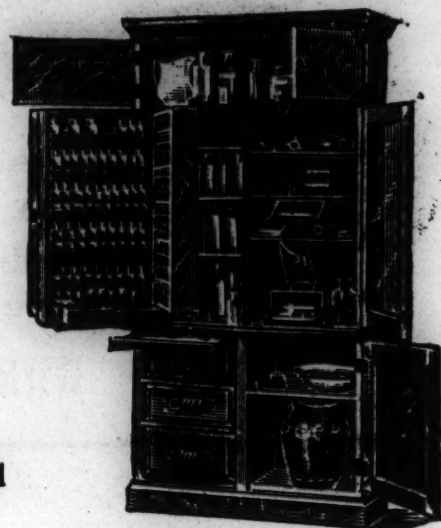
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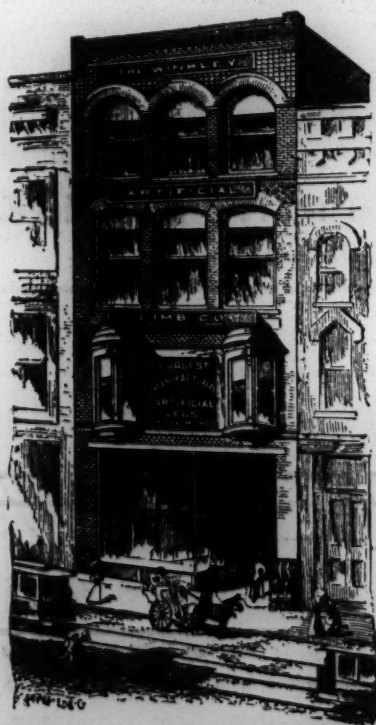
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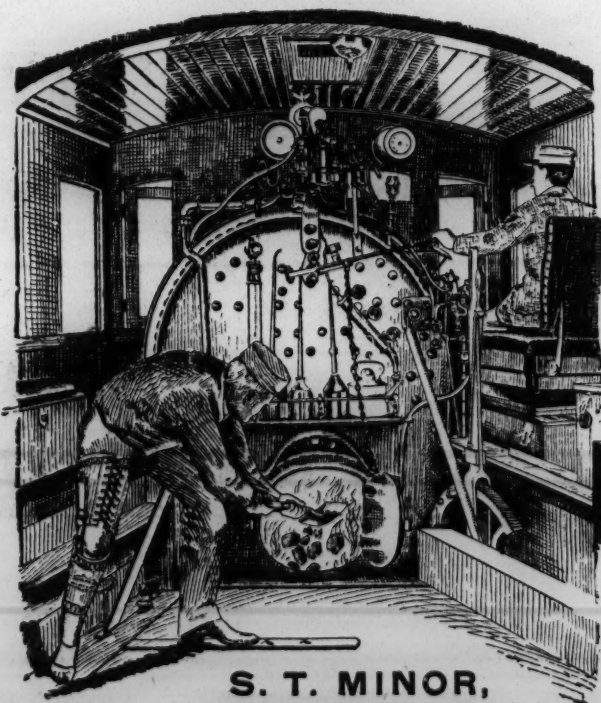
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